# An Address

ON

# THE CHANNELS OF INFECTION IN TUBERCULOSIS.

*Delivered at the Opening Meeting of the North London Medico-Chirurgical Society, Oct. 18th, 1894,*

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MR. PRESIDENT AND GENTLEMEN,—When I received your very kind invitation to be present at this the first meeting of a new session of your society and to deliver an address on some topic of at least a general interest I came to the conclusion, and in this I was greatly assisted by your secretary, that I had better take some subject concerning which I might, as far as possible, have my facts accurate—as accurate, at any rate, as my powers of observation would allow—in order that I might make myself responsible, in part at least, for the data on which any of my generalisations might be founded. I have, therefore, taken tuberculosis as my subject—not the general question, but that part of it dealing with the channels of infection and the various media and agencies through which tuberculous infective material may be introduced into the system and the conditions under which infection is brought about.

Owing to the fact that the reports to the Royal Commission on Tuberculosis are still under consideration by the Commission I am unable to enter into many details, and I must confine myself strictly to the limitations of the title of my address as given on your agenda paper. Such limitations, however, are of comparatively little importance when one comes to consider what an enormous amount of ground one has to cover in dealing even moderately exhaustively with a single part of this question.

Amongst the channels of invasion of the tissues of the human subject by tuberculous virus may be mentioned those with which we shall not have time to deal in any detail this evening. There are recorded undoubted cases of tuberculosis resulting from direct inoculation into the tissues. Tscherning at the Congrès pour l'Étude de la Tuberculose, Paris, 1888 mentioned the case of the servant whose finger was cut with a piece of broken spittoon used by her tuberculous master. In this instance there was a rapid spread of the process, but the vigorous measures—amputation of the finger and extirpation of the glands of the neck and of the axilla—resulted in the saving of the life of the patient. For comparison with this case he gives another, in which a young veterinary surgeon tore his finger with a scalpel whilst dissecting a tuberculous cow. In this case the local symptoms were distinct, but the spread of the disease was not so rapid as in the case where human sputum had been the inoculating medium. At the same meeting Dr. V. Torkomain and Professor Verneuil recorded a number of other cases in which accidental pricking with a knife smeared with tuberculous material during the performance of a post-mortem examination gave rise to no lesion or only to the well-known post-mortem warty growths which are now generally recognised to be tuberculous. That these tuberculous warty growths have no great tendency to set up secondary deposits must be acknowledged, as we all have friends or acquaintances suffering from their presence. I know at least half a dozen men who are in the position either of having had these growths for a considerable length of time or who have now succeeded in getting rid of them; and in no case, so far as I know, has any secondary lesion been set up. We must therefore agree with Koch and others that there are many cases in which, although tuberculous virus is introduced into the tissues, especially near a cutaneous surface, it does not—for some as yet unexplained reason—multiply and set up a true infective and invading process. At the same time it cannot be too strongly insisted that under certain conditions inoculation in the skin and subcutaneous tissue may be followed by a spreading, and even generalised infection.

I shall not here speak of heredity, which must, except in so far as the general condition of the tissues is concerned, play an altogether unimportant part in the spread of tuberculosis, and can only be classed, along with insufficient and imperfect food and generally defective hygienic conditions, as a predisposing cause of tuberculosis. We may, then, leave all these points and consider more especially the invasion of the human organism by tuberculous virus making its way from the alimentary canal.

At one time tuberculosis was looked upon as essentially a disease which specially attacks the lungs or the alimentary canal, as a disease which is the outcome of a condition of general weakness, of the inability of the system to get rid of waste products, of a dyscrasia or diathesis, of an accumulation of catarrhal secretion which, becoming inspissated, developed special qualities and set up local irritation, and of other fanciful and hypothetical etiological conditions too numerous to mention. When Koch's great discovery of the tubercle bacillus was announced, and when he had pointed out how the lungs become infected through the deposition of inhaled tubercle bacilli on moist mucous membranes, and when, too, he had shown how, by inoculation, local or general tuberculosis might be set up, a lesion always showing a tendency to spread from the seat of inoculation to distant organs and tissues, many of those interested in the treatment of this disease took up decided positions—some antagonistic, others favourable to Koch's thesis, without, however, in many cases taking into account the fact that Koch himself, from the very first, was most strenuous in his assertions that in most cases, if not in all, the presence of some weakening or disease of the mucous membrane, a definite lesion in the skin, or some peculiar condition, was necessary in order that the bacillus might assume its *rôle* of true parasite. He indicated that catarrhal conditions of the air passages and of the intestinal tract, and actual lesions of the cutaneous surfaces were necessary before the bacillus could invade the subjacent tissues and set up its characteristic lesions, though he guarded himself most carefully against too sweeping generalisations by pointing out that in some cases the comparatively healthy, or at least but little altered, lymphoid structures in the alimentary tract appeared to be specially vulnerable points of attack by tubercle bacilli. Experience has taught us that such reservation was necessary; at the same time it must be remembered that these lymphoid patches appear to be more readily denuded of their epithelium than the other portions of the alimentary tract. More important still, however, it is now fully recognised that the lymphocytes or leucocytes, which make their way out and in from these lymphoid patches, have the power of taking into their substance bacteria of various kinds, and of course, amongst others, tubercle bacilli. The power possessed by these cells of taking up bacteria is designed apparently to protect the animal against the attacks of these organisms; but, as will be seen, this very power under certain conditions becomes a source of danger rather than of protection.

I will explain my meaning. It has now been very generally accepted that passing to and from the patches of lymphoid tissue in the walls of the alimentary canal, into and out of the canal itself, are numerous leucocytes, amœboid cells, or lymphoid corpuscles, as they are sometimes called. Further, it has been demonstrated that these small cells have the power of taking up foreign particles and of digesting them, or of so transforming them that unless they consist of particles of pigment they disappear; amongst these foreign bodies may be numbered bacteria of various kinds; so numerous, indeed, are bacteria in this position at certain periods of digestion that by the use of proper staining methods they can be readily demonstrated lying in the bodies of the leucocytes, whilst these small cells, in turn, with their contained micro-organisms may be seen lying embedded in the large epitheloid cells of the lymph tissue. These observations are so readily made out and have been so repeatedly confirmed, and the appearances presented are so very similar to those described by Metchnikoff as occurring in connexion with the phagocytosis carried by the leucocytes of the circulation, that very naturally the two processes have been compared, and a phagocytic function has been assigned to the lymphocytes of the tonsils and to the cells of the adenoid tissue of the lower reaches of the intestinal canal. It might be possible in the case of motile bacteria to assume that in the process of their passage into a leucocyte they play an active part and the leucocyte merely a passive *rôle*, but in the case of the non-motile organisms, of which the tubercle bacillus is only a single example, it is difficult to understand how they can find their way into the leucocytes unless these latter become the active agents in the process. Taking now a

localised area of this adenoid tissue with its power of sending out and reabsorbing active leucocytes, let us consider it first from the point of view of its being a factor in protection, and secondly as a source of weakness in the process of infection by external organisms. Nearly all pathologists are agreed, and in this the conclusions of older clinical observers have been fully justified in the light of modern pathology, that infection by a micro-organism can take place only under one of two conditions: (1) the micro-organism must be present in sufficient numbers or accompanied by a sufficient quantity of its poisonous products to enable it to take a firm hold and to overcome at least a local resistance of healthy tissues; or (2) the tissues must be so weakened that their resisting power is readily overcome by a few or by comparatively weak micro-organisms. The mass of adenoid tissue, whatever its situation, if the cells are active, is a means of protection in so far as it consists of an enormous number of active cells which are capable of taking up large numbers of micro-organisms, the cells often wandering out from the network of the lymphoid tissue in order to come within "striking distance" of bacteria and other foreign particles. As is now well known, the bacterial forms found in the mouth are exceedingly numerous; almost as many organisms have been described in that position as have been found on the skin. It is evident, of course, that these organisms have made their way from the atmosphere, from food, or from dust to the buccal and nasal cavities, where under certain conditions they breed in enormous numbers. It has been pointed out, however, that the number of organisms found in the mouth of a *healthy* individual who is supplied with saliva in sufficient quantities is not excessive, and it has been suggested and in part proved that healthy saliva has a definite bactericidal power. It has been suggested that these micro-organisms must necessarily, if they are not killed off by the saliva or some other agent, make their way into the stomach, and, when the stomach is not active (as during the process of digestion), pass through the alimentary canal in such enormous numbers that they may be a source of danger, either through the fermentations they set up or through their action directly on the tissues. Very similarly the invasion of the lungs by micro-organisms appears at first sight to be a comparatively simple matter, and one is sometimes struck by the fact that, although the organisms of septic and other forms of pneumonia appear to be present in the mouth comparatively frequently, pneumonic processes are so rarely set up in the lung. Now, how is it that these organisms are so limited in their sphere of action? It has been found that in certain animals and in man (dirty or mixed feeders) there is a ring of lymphoid tissue surrounding the entrance to the larynx, and a similar ring surrounding the entrance to the œsophagus. In the pharyngeal tonsil we have simply an enormous local development at the two poles of the latter ring. So long as these tonsils, with their accessory lymphoid tissue forming this protecting ring for the pharynx, remain healthy, or so long as they are attacked by no extraordinary number of pathogenic micro-organisms, they are capable of resisting attack and of dealing with micro-organisms, even of what would be called a most virulent type. In this, of course, they are helped by the epithelium with which the lymphoid structure is invested, but some at any rate of the work appears to be performed by the wandering lymphoid cells of which I have spoken.

What part does this pharyngeal ring play in determining infection in cases of tuberculosis? It is found when pigs are fed on tuberculous material held in solution, especially if the solution contains fatty or viscid material, that in a very large proportion of cases these animals become affected with tuberculosis of the glands associated with the tonsils. It has long been a well-known fact among veterinary surgeons that swellings at the angle of the jaw, often leading to abscess, were not uncommon in the pig, but it is only comparatively recently, especially in this country, that the tuberculous nature of this abscess and the relation of these swollen glands to a tuberculous process have been fully recognised. Abroad, in France, Denmark, Germany, and Holland, this is now so far accepted that every animal inspected is examined for enlarged glands or for any indication of a tuberculous lesion in the region of the tonsil, and especially near the cervical vertebræ where the glands around the pharynx come in contact with the bony structures. As a result of such examination it has been found that tuberculosis in pigs is a much commoner disease than was at one time imagined. In many cases the tonsil itself bears evidence of its being affected by tuberculous disease; it may be enlarged, it may be ulcerated, or there may be caseous points in its substance. It is evident, therefore, that, under certain conditions, the very structures which ordinarily offer resistance to the general invasion of the bacillus may be so disorganised that they are no longer capable of dealing effectively with the organisms by which they are attacked. In other cases however, the tonsils themselves are little, if at all, affected—i.e., there are no naked-eye or microscopic lesions which would enable one to say that these organs are tuberculous; but the glands surrounding them and immediately in connexion with them contain distinct foci of tubercle in various stages of growth and degeneration, and these lesions are so definitely localised that it is evident that the infective agent, if introduced from without, must have gone through the tonsils, which in these cases had been unable to deal in the usual manner with the tubercle bacilli that were contained in the material upon which the animals had been fed. So far as can be made out from a careful consideration of the results reported by observers who have collected statistics and have performed feeding experiments, and from my own observations of a number of similar experiments, I am driven to the conclusion that this method of infection of the glands of the neck through the tonsils must be of comparatively frequent occurrence, especially in children living under insanitary conditions and subjected to various devitalising influences. It must be remembered, however, that in the case of the pig, although the tonsils are specially large and active, the chance of injury to these structures is great, and, even though the wandering cells are left out of account, injuries and abrasions of the mucous membrane must necessarily leave these structures less resistant than under ordinary conditions. It has, indeed, been pointed out in connexion with pharyngeal infection in cases of actinomycosis that in the pig, and even in the human subject, the epithelium of the tonsil is very frequently removed, and that this organ is then much more susceptible to invasion of pathogenic micro-organisms from without. The quantity of infective material—i.e., the number of bacilli—in cases where the tuberculosis is produced experimentally is, of course, often very considerable, and the bacilli massed together in large numbers are able to attack at once, and to set up those local lesions in the tonsil of which mention has already been made. In these cases, in which there is no distinct lesion in the tonsil itself, it must be held that the leucocytes, although able to take the bacilli into their substance, have not been able to kill them, that they have not been able to carry on the struggle beyond the first gland—i.e., the leucocytes have been able to carry the bacilli from the tonsil to the gland in its immediate neighbourhood, but at this point have succumbed, and their protoplasm has served as a nutrient medium for the bacilli, which, multiplying and being reinforced by their progeny, have continued the invasion still further, with the result that a chain of lymphatics and lymph glands has ultimately become infected. In many of these cases the process can be traced from the glands in the tonsil down into the neck, and so on to the thorax, by the mediastinal and post-sternal glands, and by the intercostal lymphatics and glands, and it is interesting in such cases to note how the lungs may be perfectly healthy, until the glands at their root or in the pleura have become distinctly affected.

Of course in the case of children it is not possible to demonstrate this line of invasion in the same way that one can in experimental animals, for the simple reason that in the experimental animal the disease can be traced from the very earliest stages to the time at which marked external signs of the presence of tuberculous glands make their appearance; but sufficient can be made out by anyone who will classify the result of a large number of post-mortem examinations of children, where the conditions of the glands of various parts of the body have been noted, to convince him that the process of invasion of the tonsils, or, at any rate, of the lymphoid tissue in this region, is of comparatively frequent occurrence, much more frequent than even those who have examined a large number of cases of tubercle in children are at first inclined to suppose.

The very cells, then, which in health have to do with the destruction of bacilli, and with protecting the organism against their invasion, are those which appear to be immediately responsible for the conveyance of tubercle bacilli from the outer surface to the tissues beneath. The lymphoid cells so frequently found on the surface of the tonsils and of the adenoid patches in the intestine, as already mentioned, appear to take up bacteria and other particles, and to convey

them into the adenoid tissue, where under healthy conditions they destroy or disintegrate them, even tubercle bacilli. When, however, the cells are weakened their journeyings are cut short by the attacks of bacilli, and they actually afford supplies for the enemy in their own country. What has been stated concerning the lymphoid tissue of the tonsils and the surrounding cervical glands might be repeated almost *verbatim* for the lymphoid patches of the intestine and the mesenteric glands. Here, again, the small wandering cells appear to play the same part in ingesting, carrying, and depositing the tubercle bacilli that they play in the tonsils, and it can readily be imagined, in an animal in which the tonsillar tissue and adenoid ring at the upper part of the pharynx are not well developed, and where the arrangements for preventing the access of bacteria to the alimentary canal are not so complete, but where the amount of adenoid tissue in the lower reaches of the alimentary canal is more abundant, that, if what I have said of the pig and of the human subject be true, tuberculosis of the pharynx and of the glands immediately round it should not be so frequently met with, whilst affection of the adenoid tissue of the intestinal wall or of the mesenteric glands, or of both, should occur in a larger proportion of cases at an early period after ingestion of infected material. Now what do we find? In the guinea-pig, an animal in which the lymphoid tissue is scanty in amount, and in which we have no definite tonsillar structure in the pharynx, early tuberculous affection of the neck is seldom met with, whilst affection of the mesenteric glands, with or without a primary lesion in the adenoid tissue of the lower part of the ileum or the cæcum, is of comparatively common occurrence, and this when the animals are fed with tuberculous material conveyed in a viscid or fatty vehicle, just as in the experiments on pigs. In the human subject, where both sets of glandulous tissue are so distinctly marked, we find, as we should expect, tuberculous lesions corresponding very closely to those met with in the pig, on the one hand, and in the guinea-pig, on the other; so that tubercle of the mesenteric glands, with or without an evident tuberculous lesion of the intestine, is often met with. These invasions are prevented or accelerated by the action of the wandering cells, according as these cells are endowed with a low or with a high share of vitality at the time of the introduction of the tubercle bacillus. Before leaving this subject I should like to point to what I believe to be a most important point in connexion with the spread of tuberculosis in susceptible and in comparatively insusceptible animals—a matter that may be useful both in diagnosis and in prognosis. Anyone who has traced the course of invasion and spread of the tuberculous process in a susceptible animal will have noticed that before, and sometimes in connexion with, the the general outbreak of tuberculosis, which is spoken of as "generalisation" of the process, there usually occurs a continuous spreading from point to point of the tuberculous lesions. It appears to be a process of what is called direct extension, although it may be that now and again we have a short lymph channel apparently unaffected. A lymphatic gland is never "jumped," whilst in most cases even the lymphatic channels between the two glands are more or less affected. In more resistant animals, however—and amongst these must be classed the human subject—it is sometimes noticed that this process of extension is rather what is called metastatic than direct—i.e., it appears as though several glands, or even a whole chain, were skipped over, the tuberculous process appearing to elect as its seat of further operations a gland or tissue some distance from the primary lesion. As this secondary growth is often perfectly isolated it cannot be accounted for on the theory that it is part of the process of generalisation. This metastatic invasion, just like a local manifestation of the presence of anthrax at the seat of inoculation, must be looked upon as a sign that the tissues as a whole are engaged in carrying on a vigorous resistance against the invasion of tubercle bacilli, and the wandering cells are, on their part, doing their utmost to destroy the bacilli, and it is only when their efforts are weakened, or when they are imperfectly assisted by tissues of lower vitality, that the tubercle bacilli have a chance of resisting their attacks. I have observed this so frequently, and was at first greatly puzzled by this difference in mode of extension, but I had come to a somewhat similar conclusion as Professor Delépine arrived at—viz., that in certain animals, at any rate, the lacunar system of lymphatics must offer channels by which bacilli could be carried from point to point quite apart from the lymphatic glands. Even in very susceptible animals tubercle bacilli are rapidly taken up by the wandering lymphoid cells, and by these cells may be carried for a short distance, but these cells are so unequal to the task of coping with the bacilli that they very rapidly undergo degenerative changes, and the tubercle bacilli, as already stated, are supplied with fresh nutriment; these in turn are taken up by other cells, which, however, soon share the same fate, so that the distance along which any single corpuscle travels, after it has once ingested even a few bacilli, appears to be extremely limited, with the result that there are practically no gaps between the points at which the different series of bacilli are carried by the amœboid cells.

In the case of a resistant cell we have a different series of events. The amœboid cell, with its higher power of resistance, is able to withstand the attacks of the bacillus and its products for a comparatively long period. In fact, if only one or two bacilli be present, it is now well recognised that the cells are able to destroy them, so that no further trace of the effect of the action of the bacilli can be distinguished, and even where larger numbers have to be dealt with the cells have such power of resisting that they retain their motility for some time. Even when they succumb other cells may take them up so rapidly and still retain their amœboid powers for so long that the bacilli may be carried a considerable distance from the original lesion or focus before they meet with cells so far deprived of vitality, or are deposited in a gland in which the active processes have been so far diminished that the bacilli are able to multiply, to get the upper hand of the tissue cells, and thus to set up a more or less permanent localised lesion. The importance of this point in connexion with prognosis is at once evident.

Tuberculosis is a disease not confined, under present conditions, to the human subject. It is, indeed, much more frequently met with than was at one time supposed; and the French Committee of the Congress on Tuberculosis, already referred to, has collected statistics whereby it is shown that not only are cattle affected by this disease, especially in connexion with the serous membranes, the lungs, and, most important from our point of view, the udder and its lymphatic glands; but the pig, in which the glands of the neck and the spleen are specially affected; birds, in which the first parts of the respiratory and alimentary tracts and the spleen are the seats of the disease; rodents, horses, goats, and, comparatively rarely, carnivora and sheep. It should be pointed out, however, that in this country sheep are seldom affected, but that in the case of the horse the so-called lymphadenomatous glands have now, through the work of Professor MacFadyean, been placed in their proper position as the result of a truly tuberculous process, whilst I am convinced, from the number of tuberculous cats I have seen, that this disease is much more common amongst carnivorous animals than is usually supposed. If thus we have all these animals affected, it must be evident that the sources and centres of infection must be much more numerous than has hitherto been recognised, and the facilities for infection far greater than the most pessimistic of us could have believed. It is evident, moreover, that these facilities are greatest in the direction of infection by ingestion of tuberculous materials—if inhalation, for the present, be left out of account.

So far we have considered only what by many is looked upon as a minor factor in the propagation of tuberculosis, and observers both old and recent have always maintained that pulmonary tuberculosis accounts for a very large proportion of the cases of this disease, and certainly it would appear at first sight that this is the most common form, especially as met with in-patients of advancing years. There can be no doubt that a large proportion of the fatal cases of tuberculosis—14 per cent. of the whole of the deaths recorded from all sources of disease—exhibit their primary or secondary tuberculous manifestations in the lung, although amongst those cases a large proportion of the deaths are amongst children during early life, in whom evidence goes to show that the primary seat of infection is very frequently in the alimentary tract. In consequence many, especially non-medical people, associate tuberculosis almost exclusively with its pulmonary manifestation, and even medical observers do not all fully appreciate the fact that so many cases of tuberculosis do not commence primarily in the lungs. There can be no doubt that infection of the lungs through the inhalation of tuberculous material in the manner described by Cornet, and now generally recognised, accounts for a large number of cases of phthisis, but we are certainly not justified in assuming that all cases of

pulmonary tuberculosis are due to inhalation of dried sputa or of particles of dust to which tubercle bacilli are attached, although these must undoubtedly be fruitful sources of tuberculosis; but it cannot be too strongly insisted upon—and I am sure that those of you who have made any considerable number of post-mortem examinations of the bodies of tuberculous patients who have succumbed at various periods of life will agree with me in this—that the affection of the lung often appears to be (although the ultimate cause of death) merely a secondary affection. I have seen in case after case in children and in animals fed on tuberculous material the lungs markedly affected, but in a large proportion of these cases it has been possible to trace the course of invasion back from a caseous or old calcareous mesenteric gland through the chain of retro-peritoneal glands up through the diaphragm to the posterior mediastinal and bronchial glands, and so on to the lung. I have not seen this in a few cases only, but in dozens of children, in a few adults, and in many animals. We have also an example of secondary affection of the lungs following tubercle of the pharyngeal tonsillar structures, through the glands in the neck, then those in the thorax, and finally to the lung itself in the examples that have already been given of infection of the pig by tuberculous milk &c. Moreover, I have seen a similar line of invasion in children, sometimes alone, but usually associated with tubercle extending from the mesenteric glands in the direction already indicated. In all these cases it would appear that the glands at the root of the lung become tuberculous and caseous before the pulmonary tissue itself shows any evidence of disease. This is the form which is much more readily produced experimentally than any other, the glands at the root of the lung being distinctly caseous when the tuberculous nodules in the lung itself are still quite pearly in appearance externally and have merely a slight caseating point in the centre. The importance of the bearing of these facts is evident when it is considered that in all probability tuberculosis of the alimentary tract and of the mesenteric glands can be brought about only by the introduction of tuberculous material, usually milk in the case of children, though it is quite conceivable that raw and undercooked meat may, even in the case of children, be accountable for a small proportion of the cases with which we meet. It is probable, therefore, that we must relegate a certain proportion of cases of lung tuberculosis to the class of cases arising from secondary infection and following upon abdominal tuberculosis. Not only are there these cases arising from old calcareous mesenteric glands and from what may be called recent intestinal and mesenteric tubercle, but, as the result of observations on a number of young animals fed with milk containing tuberculous material, I am inclined to believe that in some cases even when there are distinct primary tuberculous lesions in the lung, especially where these are extensively distributed although of recent origin, the infective feeding material has made its way—in small quantities of course, but still sufficiently large to set up the tuberculous process—almost directly to the lungs, and I cannot help thinking that some of those cases in which extensive tuberculosis has been found in the lungs of children who have died within a few months after birth, have been infected in this fashion. Although it is extremely difficult to get positive evidence on this point it may happen to some of you to have such cases under observation. There are undoubtedly a few cases on record in which tubercle has been present in the lungs at birth—i.e., the child has suffered from congenital tuberculosis—but such cases are extremely rare, whilst if the child lives for six weeks after birth and is fed artificially during that time and then succumbs to tuberculosis, even though the lesions are widely distributed in the lungs, and especially if any of the abdominal glands are also affected, I am convinced that the lesions have been set up by tuberculous material taken into the alimentary canal, but at the same time into the respiratory passages.

Gentlemen, you will, I am afraid, be under the impression that I am passing too lightly over infection by inhalation of tuberculous material into the respiratory tracts. In the face of facts and statistics it is impossible to overrate these, but I am leaving this part of the subject to take care of itself, for the reason that in most cases our attention is so forcibly drawn to the subject, and it is dinned into us so continually, that there is little fear that we shall lose sight of or even attach too little value to it; whilst, on the other hand, there appears to be even now too little attention paid to the question of infection commencing in the alimentary tract. We speak glibly of infection by tuberculous meat and milk, we think of a few cases that have come under our observation, in which one or other of these agents (especially milk) was thought to have played a causal *rôle*, but that ingesta of various kinds are daily adding to our numbers of cases of tuberculosis is not yet, I am sure, fully realised in this country. How real the danger appears, however, to those who have been engaged in the careful study of the question of tuberculosis for many years in a country where tuberculosis amongst cattle has come to be an important question, not merely with the scientific authorities but with the farmers themselves, may be gathered from the fact that on many farms in Denmark constant fortnightly inspection of cattle is carried on, and from the knowledge gained through this fortnightly inspection it has quite recently been determined by the Danish Government to hand over to their head veterinary adviser, Dr. B. Bang, a considerable sum of money (£3000)—a sum which is to be granted annually for five years—with which it is proposed to carry on a systematic inspection of all cows not previously under observation, to use tuberculin as a diagnostic agent, to kill off the cattle that are undoubtedly affected with tuberculosis, and to keep under observation every animal in which there is any suspicion that the disease exists. It is hoped, in this manner, to stamp out the disease in the present generation, and I am convinced that if this once be thoroughly done, and the inspection be continued, the comparatively trifling amount spent by the Government will prevent a loss to the Danish farmers, and will cause a gain to infant life almost incalculable. One word more and I have done. If Koch's tuberculin had done far more harm than it ever has done, the saving of human life indirectly, through its efficacy as a diagnostic agent, will be so enormous that the account to the credit side of the balance will have to be reckoned not as hundreds to units, but as thousands. I may appear to be speaking extravagantly, but from what I have seen of the effect of milk from tuberculous udders when given raw, even to comparatively insusceptible animals, I feel no qualms of conscience in making even these apparently exaggerated statements.

[The address was illustrated by over fifty lantern slides, all from photographs or microphotographs. The principal points illustrated were the spread of tubercle from the tonsils down the glands of the neck and to the thorax; infection by the alimentary canal and the mode of spread from this point; the mode of spread of tubercle in various organs; the appearances of tuberculous lesions in different animals; a comparison of the appearance of the tubercle bacilli from different sources; the method of spread of tubercle in the milk-gland of the cow and the appearances presented to the naked eye and under the microscope by the tuberculous lesions; photographs of the bacilli in the milk-ducts; photographs of tubercle bacilli embedded in lymphocytes and again when taken up into the larger cells; photographs and microphotographs of tuberculous lesions in the alimentary canal and in other positions in various stages of growth and degeneration.]

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ROYAL COLLEGE OF SURGEONS IN IRELAND.—Mr. Arthur W. W. Baker, F.R.C.S. Irel., and Mr. R. Theodore Stack, F.R.C.S. Irel., have been elected examiners for the Licence in Dentistry of the College.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—The annual meeting was held on Oct. 10th, when Mr. Greig-Smith vacated the chair to his successor, Dr. A. J. Harrison, who gave a most interesting inaugural address, describing his experiences at the Zoological Gardens, mentioning many pathological and clinical curiosities. Amongst these were the death of a fine lion from rupture of an enormously enlarged spleen, a case of strychnine poisoning in a brown bear, death of a llama from hæmorrhage from a torn jugular vein, removal of an ingrowing claw from a lion's paw, and Cæsarean section performed on a gazelle for obstructed labour. He also narrated the case of a Cape ostrich that died from indiscretion in diet; at the necropsy on this bird the contents of the stomach were found to be remarkable, consisting of handkerchiefs, a pocket-book, stones, pencils, and a prayer-book. The following officers were elected:—President-elect: Mr. A. W. Prichard. Hon. librarian: Mr. L. M. Griffiths. Hon. secretary: Mr. J. Paul Bush. Committee: Drs. Michell Clarke, Aust Lawrence, and J. E. Shaw, and Messrs. J. Dacre, W. H. Harsant, and G. Munro Smith.

# An Address

ON THE

# INFLUENCE OF CICATRIX IN THE PRODUCTION OF ATROPHY AND ITS UTILITY IN SURGERY.

*Delivered before the Nottingham Medico-Chirurgical Society, Wednesday, Oct. 24th, 1894,*

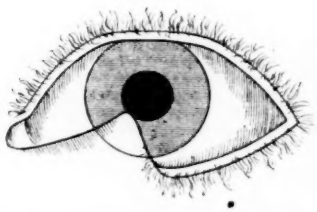
BY T. PRIDGIN TEALE, M.A. OXON., F.R.C.S. ENG., F.R.S.,

CONSULTING SURGEON TO THE LEEDS GENERAL INFIRMARY.

GENTLEMEN,—Having, somewhat rashly perhaps, consented to give this opening address to your society, I must confess to have been rather at a loss in deciding what the subject of it should be. My difficulty was maybe the greater, as I have rarely given a public address without having some subject prominently in my mind which I was anxious to bring into notice, and for which the occasion afforded a fitting opportunity. To-day, in default of such a ready-to-hand subject, will you permit me to revive an old essay[1]—old enough, I fear, to be out of mind, and perhaps never even to have been seen by my audience, and therefore practically new? It has also the advantage of giving me an opportunity for reviewing and expanding, by the experience of twenty-five additional years, views then expressed. The question may appear to be one of small dimensions and of comparatively little importance in the midst of the great surgical feats which are being published from day to day, but its consideration may nevertheless now and then suggest a way out of a difficulty, and prove to be the means of giving relief to some of those minor ills which, as the Americans say, "bulk large" to the individual sufferer. My main proposition may be stated as follows: "That tissues which depend for their nutrition upon vessels passing through a cicatrix have a tendency to waste, a tendency which often does not become evident until some time has elapsed from the completion of cicatrisation, and may continue for months, or even years, until in some instances the dependent tissue fades away completely." Let me give three illustrations of my meaning.

CASE 1. *Absolute vanishing of a portion of eyelid adherent to cornea after its isolation by cicatrix.*[2]—A man was struck in the right eye by a hot cinder. The lower eyelid closed on the cinder and held it against the cornea, producing thereby a slough of the conjunctiva and cornea. The opposed raw surfaces during cicatrisation united, and the result was a symblepharon. The middle portion of the lower eyelid, about one-third of an inch in breadth, was adherent to the eyeball and encroached so far upon the cornea, to which it was cicatrised, as to conceal the lower margin of the pupil and slightly interfere with vision. In April, 1860, twelve

FIG. 1.



months after the accident, the following operation was performed in order to release the eyeball from the adherent lid. The eyelid having been freely dissected from the globe, so as to set the eye at liberty, two flaps of conjunctiva from the uninjured part of the eyeball were dovetailed into the site of the symblepharon, but the portion of skin forming the apex of the symblepharon was left adherent and undisturbed on the cornea. (Figs. 2 and 3.) Shortly after the operation the opaque island of skin left on the cornea began to waste, becoming more flat and translucent, and in eighteen months had vanished, leaving the cornea transparent and flattened from the loss of substance sustained at the time of the injury. The site of the adherent skin could only be detected by oblique illumination, vision had improved, and

FIG. 2.

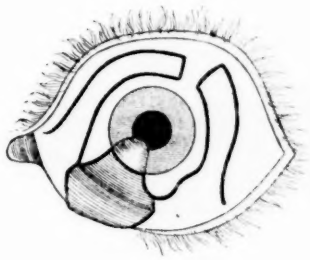
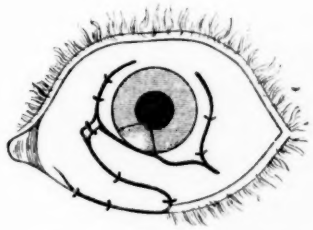


FIG. 3.



the movements of the eyeball were restored by the interpolated conjunctiva. Here we have the clear and unmistakable fact that a portion of skin became atrophied and disappeared after its isolation by cicatrix had been rendered complete by operation.

CASE 2. *Disappearance of tumour after ineffectual attempts at removal.*[3]—I cannot do better than describe this case in the words of a letter which I wrote to Sir James Paget on Jan. 11th, 1878: "Mr. —— of ——, aged sixty-eight, consulted me three weeks ago about a tumour situated behind the angle of the left lower jaw. After existing for two years as a small movable lump the tumour had within a few weeks begun to grow with an increasing rapidity. It was fairly movable in all directions, and I advised its removal. A fortnight later I went over to —— to remove it, and then found that the tumour had become at least double in size, was very elastic, and more fixed. I cut down upon the tumour, and found that it involved and seemed to be growing in the anterior portion of the sterno-mastoid muscle, and that it had no limiting capsule, as I hoped. Having stripped the outer side of the tumour with the finger, separating it from contiguous fibres of the muscle, I followed it deeply until I could almost touch the transverse processes, where it was firmly attached to deep structures in the neighbourhood of the large vessels. I therefore thought it more prudent to abandon any further attempts at removal. Having inserted a drainage-tube, I closed the wound, and all healed satisfactorily. Curiously, the rapid growth seems to have been checked, and this makes me regret that I did not strip the opposite side also with a view to cutting off supplies." Sir James Paget and Mr. John Wood, who saw the patient, after hearing my description of the operation agreed that no further surgical interference was advisable, and the former suggested a course of small doses of iodide of potassium with large doses of liquor potassæ. On April 24th Mr. —— wrote that, apparently under the influence of the medicine, the tumour had decreased so rapidly that ten days previously he had omitted the medicine, and that "it is now scarcely feelable and not perceptible." In December, 1878, he again wrote: "The tumour, or whatever it was, has departed in peace, seemingly never to return." I have heard of him from time to time, but never

[1] Brit. Med. Jour., Dec. 11th, 1869.
[2] Ophthalmic Hospital Reports, vol. iii., p. 255, October, 1861.
[3] THE LANCET, Jan. 1st, 1887.

of any relapse. It may be said, perhaps, that the fading of the tumour must be attributed to the iodide of potassium. Against this, however, is the fact that increase of growth, which had been marked and rapid during the weeks immediately preceding the operation, had been so distinctly arrested that the fact was emphatically spoken of in my letter to Sir James Paget. Moreover, there had been a movable tumour for two years, and it is not likely that such a tumour would so completely disappear under the influence of iodide of potassium alone. At the same time I feel that my explanation of the disappearance of the tumour is open to doubt.

CASE 3. *Shrinking of prostatic fibroma after internal incision.*—In September, 1893, a man aged fifty years was sent to me by Mr. Purcell of Silsden. He complained of great difficulty and increased frequency in micturition of about six months' duration, and his symptoms were constantly becoming worse. On his admission into the hospital the stream of urine was very small, and he was disturbed every half hour during the night. There was no stone. On examination of the prostate per anum there was to be felt a hard swelling the size of a filbert to the left side of the prostate. Judging that the swelling must be either an abscess or a prostatic fibroma, I reached it by perineal incision. As the tumour proved to be a solid fibroma, I freely incised and divided it with the knife, and then tore and broke up the tough fibrous mass, with the deliberate purpose of inducing atrophy. In doing this I opened the prostatic urethra. This opening enabled me to pass the finger into the bladder and to satisfy myself that there was no enlargement of the third lobe, and no projection into the bladder, and that the neck of the bladder was smooth and normal. When he left the hospital at the end of the month the perineal wound was healed, and he had perfect command of micturition. Four months after the operation his medical attendant reported that he could retain his urine a normal time, and had no pain or difficulty in passing it. In this case we have shrinking of new growth deliberately and intentionally induced by breaking up of tissue without removal of substance. The atrophy went *pari passu* with the healing of the broken-up structures and was not a remote result of cicatrisation. Although this case is not a pure illustration of the principle laid down as the text of this paper, it nevertheless tends to confirm the general principle, and is of value because the treatment used was a direct deduction from the observed effects of cicatrix as a source of atrophy. A remarkable confirmation of the value of this principle in dealing with enlargement of the prostate is afforded by Mr. Reginald Harrison,[4] from whom the following interesting case is quoted:—

"*Puncture of the bladder from the perineum through the enlarged prostate, with retention of a cannula.*—This process has been referred to as tunnelling the enlarged prostate. I introduced the trocar in the median line of the perineum, three-quarters of an inch in front of the anus, and pushed it steadily through the prostate into the bladder, at the same time retaining my left index-finger in the rectum for a guide. For about six weeks after the bladder was tapped the patient passed urine entirely through the cannula. His health rapidly improved, and he was able to go about as if nothing ailed him. Then it was noticed that urine in gradually increasing quantities began to flow through the natural passage, so much so as to lead me to infer that, for some reason or other, the prostate was ceasing to obstruct micturition. On Jan. 28th, 1882, I removed the cannula; the punctured wound healed in the course of a few days and the bladder gradually recovered its natural function and power. The patient now retains his urine for two or three hours at a time and at night he only requires to urinate twice or thrice. It may be said that the functional symptoms of enlarged prostate have disappeared. After the tube had been removed I found evidence, from a similar examination, that the prostate had undergone a marked diminution in size—in fact, but little that was abnormal could then be detected. I saw this patient in 1884; he was in perfect health and free from all urinary troubles. He died at the age of ninety, without any recurrence of his ailment or the necessity for again using a catheter. Here, then, was a case where a surgical proceeding on the enlarged prostate not only immediately relieved urgent symptoms, but was followed by its rapid atrophy—a result which, so far as I know, had not been previously noted. Atrophy of the large prostate following incision I have occasionally observed in connexion with the operation of lithotomy in elderly persons; it has, I believe, happened under similar circumstances to the normal structure. It is probable that the retention of a cannula in the prostate for a period of over two months may have induced changes in the part similar to those observed to follow the use of setons, where wasting of the adjacent tissues takes place."

Let us now inquire into the nature of the process by which these changes are brought about, and then consider whether the same principles may not be usefully applied in several departments of surgery. We are all familiar with the fundamental fact that cicatrix, visible on the surface of the body both during its formation and for months or years after its completion, contracts. This process of contraction, going on over the whole cicatricial surface, not only draws parts together but narrows and strangles the channels which pass through the cicatrix, lessening the calibre of arteries and thus bringing about a gradual whitening of the scar, strangling superficial veins and thereby rendering them visible and tortuous on the surface of the scar. Under this same process a rectum may be strictured after too free destruction of its circumference for the cure of hæmorrhoids, or the urethra may be strictured after amputation of the penis where the surgeon fails to provide against such a result. All these characters of visible cicatrix are familiar to us on the surface of the body. Are they less true for unseen subsurface cicatrix, that layer of new material by which, for instance, a transplanted flap of skin grows to the raw surface made by the surgeon? Such a flap, on its transplantation, is glued to its new bed by a material in which vessels are rapidly formed, which aid in maintaining the life and vigour of the skin thus suddenly deprived of a great portion of its blood-supply. Many of these newly formed, numerous, and vitally important vessels, traversing, as they do, a cicatrix, are doomed after a time to be one by one reduced or cut off. Does the flap, then, become atrophied? Certainly not. The gradual lessening of the blood-supply traversing the cicatrix is balanced by the compensating enlargement of the unembarrassed vessels of the sound pedicle, whereby the flap is enabled to maintain its normal nutrition—in fact, to "keep up to the mark." If the pedicle be completely severed, and the transplanted skin be entirely dependent for nutrition upon a cicatrix, there is a tendency in the newly planted material to lose bulk and to deteriorate.

When I wrote my original paper I was under the impression that deterioration and dwindling must inevitably result from such complete isolation; but recent experience of complete transplantation shows that such a view was too general, seeing that pieces of skin or mucous membrane have been successfully transplanted into positions in which their vitality was entirely dependent upon vessels traversing a cicatrix. That the general principle, as a rule, holds good I have no doubt, and it may be that when a complete transplantation has been successfully made the conditions have provided an exceptionally thin lamina of cicatrix, the contractile power of which was too feeble to injuriously limit the calibre of the nutrient vessels.

After symblepharon probably the most striking illustrations may be drawn from nævus, both cutaneous and subcutaneous.

*Cutaneous nævus.*—In 1863 I removed by enucleation a large nævus overlying and perhaps involving the parotid gland in a child aged four months.[5] A portion of the skin covering the tumour was involved in the disease. In reflecting the skin covering the tumour I preserved as part of the flap the nævoid skin, with the firm belief that in course of time this diseased skin would regain its natural appearance. The result justified this anticipation. One-third of the nævoid skin sloughed, but the remainder became united to the surface of the wound by cicatrix, and at the end of three months had the usual appearance of cutaneous nævus, being of the size of a shilling. At the end of a year all appearance of the nævus had faded away. A like result has been obtained by Mr. Furneaux Jordan, who has devised an operation for nævus of the face and orbit, which he has described in THE LANCET.[6] "Where the skin is not greatly implicated I make an incision through it, and completely through the nævus, dividing it into two halves; then each half of the tumour

[4] Surgical Disorders of the Urinary Organs, fourth edition, pp. 276 and 283.

[5] Transactions of the Royal Medical and Chirurgical Society, 1867.

[6] THE LANCET, Dec. 1st, 1866.

is cut out piecemeal by curved scissors. The partially implicated skin will in time become natural." In treating cutaneous nævus of the face and eyelid, Messrs. Curling, Startin, Brodhurst, and others have used subcutaneous ligature, which, whilst preserving the diseased skin, has induced its recovery by the production of internal cicatrix and the destruction of the subcutaneous part of the disease. The principle involved in these changes is explained and applied as follows in my paper on "enucleation of nævus."[7] "When a portion of skin covering a nævus is involved in the disease it is not necessary to sacrifice such diseased skin, as it may be dissected off the surface of the tumour, and, being retained as a cover to the wound, will regain gradually its normal appearance. The vessels of the nævoid skin are mainly fed from the nævus itself, but after removal of the nævus the diseased skin becomes united to the deep surface of the wound by new material—i.e., by internal cicatrix. There being in all cicatricial structures a tendency to contract, the new vessels which pass through the cicatrix become gradually more narrowed and choked off, until at last the diseased skin, being mainly dependent for nutrition on its lateral continuity with healthy skin, is brought back to its normal state and appearance. This change does not occur immediately after the operation, but goes on gradually, in the course of months, simultaneously with the process of contraction of the cicatrix."

*Subcutaneous nævus.*—Believing that in the various methods of destroying nævus by subcutaneous ligature, setons, nitrate of silver probes, &c., the great factor of cure is the internal cicatrix, which, by its contraction, cuts off in all directions the free and excessive intercommunication of bloodvessels, on which the special character and growth of nævus depend, and induces a retrograde nutrition—i.e., atrophy—I determined to put this notion to the test in the following case.

CASE 4.—A boy aged two years was brought to the Leeds Infirmary on account of a nævus in the skin over the left shoulder-blade. At birth of the size of a shilling, the nævus had grown, chiefly subcutaneously, until it had attained the size of a five-shilling piece, and stood out from the surface as a prominent tumour. A portion of the surface, of the size of a two-shilling piece, was red, being involved in the disease. The nævus could be felt as a well-defined flat tumour, with distinct margin, extending under the skin beyond the area of diseased skin. In March, 1867, having introduced the wire of the écraseur at the margin of the tumour, I passed it round the edge of the whole tumour and then split the tumour into two, like a muffin. Henceforth the two halves must reunite by cicatrix, and their freedom of vascular intercommunication must be progressively more and more reduced by the ever-contracting cicatrix. On May 22nd all suppuration resulting from the operation had ceased. In October, 1869, since the cessation of suppuration, the tumour had gradually decreased, and it was now perfectly level with the surrounding skin. With the hand, unaided by the eye, its situation could hardly be detected; all distinction from surrounding tissue had ceased, there being no trace whatever of the defined margin of the subcutaneous portion. The discoloured skin was not materially altered. In 1874, seven years after the operation, I made the following note: "Hardly a trace of the nævus visible." This operation was specially devised and carried out in order to put to the test the views I held as to the effect of cicatrix in producing atrophy, which were clearly explained to my class before the operation was performed. The result has amply justified both the anticipations and the practice based upon them. The only traces of operation to be found are two small white scars where the wire of the écraseur was passed through the skin.

This principle of utilising cicatrix has been my constant guide in the treatment of nævus—more especially of the small superficial ones about the face. As a rule a few punctures with a Hulke's cautery are sufficient to cure an ordinary superficial nævus—i.e., by making a series of small cicatrices, representing perhaps in the aggregate less than one-third of the diseased surface; the remaining untouched two-thirds undergo a trophic restoration, a process which frequently is not complete until the lapse of one or two years.

*Prostatic and uterine fibroma.*—Here there seems to be a distinct field for the surgical use of cicatrix. We have already seen—in the case spoken of by Mr. Reginald Harrison and in the one related by myself—how cicatricial destruction may take the place of removal or excision of the prostate in restoring normal function to the bladder. Some thirty-five years ago the late Mr. Baker Brown obtained a shrinking and arrest of growth of uterine fibroid tumours after boring and internal bruising of their structure. This treatment, though at times successful, did not hold its ground, probably because septic disasters occurred, and it was condemned as unsafe; but the treatment, though correct in principle, was premature, seeing that the antiseptic measures and means of drainage which would have rendered it safe were then undiscovered. Now I fully believe the treatment might be revived for those cases in which great risk would be incurred by extirpation, on the condition that antiseptic drainage of the broken-up cavity were secured. The following report of a Case of Fibrous Tumour of the Uterus, illustrating a Surgical Operation for its Cure, read by the late Mr. Baker Brown before the Obstetrical Society, is quoted from the *Medical Times and Gazette* of Dec. 17th, 1859.

"In a woman aged forty-nine, ill for six years, there was found an abdominal tumour, extending half-way to the umbilicus, composed of the uterus enlarged by the presence of a fibrous tumour. The os uteri was incised and the tumour brought into sight. The author then proceeded to operate upon it by piercing it in the centre, cutting out a portion much in the manner of coring an apple. Through the cavity thus formed as much as possible of the surrounding tissue was broken down. A copious discharge occurred for the next few days, and at the end of a few months a slightly enlarged uterus was all that could be detected. The principle on which the operation in question was adopted (which, the author observed, had been performed by Atlee and Recamier) was the knowledge of the fact that when polypi are ligatured the whole of the growth perishes, not only that on the distal side, but also that on the other side of the ligature. By removing a portion of the fibrous tumour the same effect—the destruction of the whole—was in this case obtained. Dr. Barnes believed Atlee's operations had been attended with great mortality."

In THE LANCET[8] there is a paper by Mr. Mansell Moullin with a very significant title, "Can Atrophy of the Enlarged Prostate be induced by Partial Removal?" The very title tells a tale, and shows that the writer's mind was tending to the belief that partial removal of, or damage to, hypertrophied prostate might lead to diminution, to atrophy, of the excessive growth. Mr. Moullin has collated a very interesting series of facts, and his essay is instructive and well worth study. Read in the light of the principles discussed in this paper, many of the cases quoted seem to be additional illustrations of the effect of cicatrix, not only in checking further growth, but also in determining retrogressive nutrition—i.e., atrophy—and of the fact that there are abnormal developments of tissue in which the balance between growth and wasting is so finely adjusted that even a slight interference with vascular supply can initiate retrogression and establish not infrequently a beneficent atrophy.

*Hypertrophy of the thyroid gland.*—Perhaps one may claim as akin to this subject those cases of enlargement of the thyroid gland which have been treated by division of the isthmus without removal of any tissue whatever. It has been quite clear that in the hands of my colleagues and of myself many instances have occurred in which division of the isthmus of an enlarged thyroid body has not only given the relief aimed at by taking away dangerous pressure upon the trachea, but has also led to a remarkable diminution of the enlarged lateral lobes—a diminution hardly looked for at the time of the earlier operations, but one which followed as a direct result of the cutting off of the free inter-communication of the vessels of the two lateral lobes. Such cases, although perhaps not entirely identical in principle with the other illustrative cases, are sufficiently in harmony with the principles advocated to justify a reference to them in such a paper as this.

A remarkable confirmation of these views occurs in the *Cyclopædia of Surgery*,[9] where there is a reference to the practice of subcutaneous breaking up and crushing of tumour employed by French surgeons. One case is thus described: "I saw Thierry treat in this manner a lipoma of the mastoid region in a Paris banker, who was anxious that the operation should leave behind no visible cicatrix. The tumour was no longer than a small pullet's egg, yet required for its crushing three sittings, at intervals of three weeks. Resolution took place at last, and after the lapse of six months the tumour had completely disappeared; but Thierry entirely failed in another case." The comment I would

[7] Transactions of the Royal Medical and Chirurgical Society, 1867.

[8] THE LANCET, April 21st, 1894.

[9] Vol. iv., p. 405.

make upon this is that the French surgeon probably did not appreciate the factor on which his success depended—namely, the contractility of the internal cicatrix—nor the importance of the element of time in bringing about the results aimed at.

In conclusion, may we not indulge a hope that the views discussed in this paper may fructify in the minds of others not only in explaining unlooked-for beneficial results of partial operations, even of operations which at the time seemed to fall short of the mark and intention, but also may now and then point out an easier and safer and a less deforming method of remedying overgrowths or deformities?

# BLOODLESS AMPUTATION AT THE HIP-JOINT:

## WITH A SYNOPSIS OF FORTY-THREE CASES.

By JOHN A. WYETH, M.D.,

PROFESSOR OF SURGERY IN THE NEW YORK POLYCLINIC; VISITING SURGEON TO MOUNT SINAI HOSPITAL; CONSULTING SURGEON TO ST. ELIZABETH HOSPITAL, ETC.

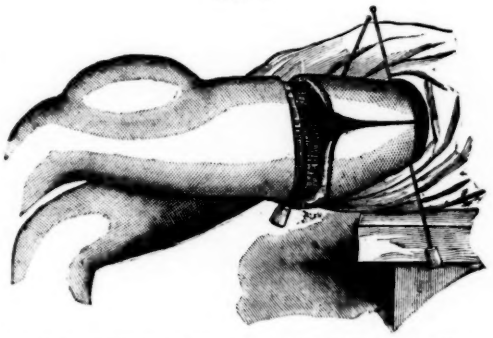
A MAN twenty-five years of age consulted me on Aug. 11th, 1894, on account of a large tumour of the left thigh. From Dr. E. T. Steadman of Hoboken, New Jersey, the following history was obtained. In November, 1893, the patient was found to have a tumour about the size of a goose's egg occupying the middle anterior aspect of the left thigh. Two months before this date, while springing suddenly into a descending car, he felt something snap in the location of the tumour. He says he did not notice any tumour until four weeks later. This tumour was dissected out by Dr. Steadman. It was located beneath the sartorius, not attached anywhere, except at its upper end, where it was adherent to the sheath of the femoral vein. The wound healed nicely. Six months later (May, 1894) there was recurrence; and when I saw him in August a large oblong tumour occupied the left thigh, extending from four inches below Poupart's ligament to the same distance above the knee. It was adherent to the soft structures and surrounded by the femoral vessels. I advised amputation at the hip-joint, which I performed on Aug. 15th at the Polyclinic Hospital after the following method.

1. In the usual position for this amputation the limb was emptied of blood by elevation and application of the Esmarch rubber bandage from the toes to within two inches of the tumour.

2. While the member was still elevated, and before the Esmarch bandage was removed, the rubber tubing constriction was applied. The object of this constriction—and it is the chief point in the method—is the absolute occlusion of every vessel at the level of the hip-joint, safely above the field of operation, permitting the disarticulation to be completed and the vessels secured before the tourniquet is removed. (Fig. 1.) To prevent any possibility of the tourniquet slipping I employed two large mattress needles or skewers, about three-sixteenths of an inch in diameter and ten inches long, one of which was introduced an inch below the anterior superior spine of the ilium and slightly to the inner side of this prominence, and made to traverse superficially the muscles and fascia on the outer side of the hip, emerging on a level with and about three inches from the point of entrance. The point of the second needle was made to enter one inch below the level of the crotch internally to the saphenous opening, and, passing squarely through the adductors, to come out an inch below the tuber ischii. The points were at once shielded by bits of cork, to prevent injury to the hands of the operator. No vessels were endangered by these skewers. A piece of strong white-rubber tube, half an inch in diameter and long enough when tightened in position to go five or six times round the thigh, was now wound very tightly round and above the needles and tied. The Esmarch bandage was then removed.

3. In forming the flaps in this case, in order to keep as far as was possible from the tumour, a short anterior skin flap was made parallel with Poupart's ligament and one inch and a half below the tourniquet. On the inner and outer aspects of the thigh the line of incision was carried well

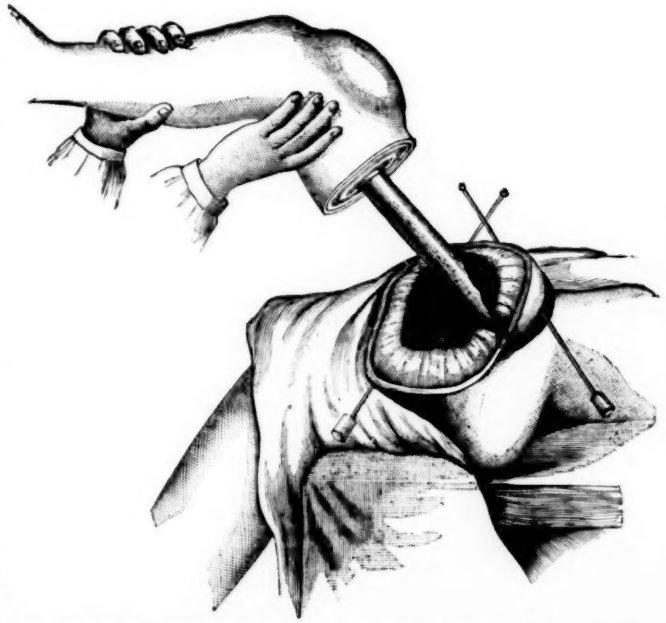
FIG. 1.



The needles and constrictor applied. Circular and longitudinal incisions for skin flap.

down, forming a long posterior flap. This was dissected up in its entire circumference as high as the constriction, and in it was included the subcutaneous tissue down to the muscles. In order to facilitate the dissection the cuff was split longitudinally over the great trochanter up to the tourniquet. The flap was held well up out of the way and one inch below the constriction, and the muscles, vessels, and nerves were cut squarely across by a circular sweep down to the femur. A second circular sweep was made five inches above the knee; the intervening soft parts were split by a longitudinal cut along the outer aspect of the thigh and by a few strokes of the knife were rapidly stripped from the femur. (See Fig. 2.)

FIG. 2.



Cuff of skin and subcutaneous fat turned back; muscles divided at the level of the small trochanter; bone partly stripped, and large vessels exposed for deligation.

The vessels were now tied (veins as well as arteries) with catgut. This accomplished, the muscles were with scissors or scalpel divided from their insertion into the two trochanters and held away by strong retraction, while the capsule, readily exposed, was divided, the ligamentum teres forcibly ruptured, and the dismemberment completed. The constricting tube, still in position, was now gradually loosened, and every bleeding point, thus safely demonstrated, was at once secured by forceps and ligature. No blood escaped from above, and none was lost, save that necessarily in the thigh between the limits of the Esmarch bandage and the constriction. Satisfied that all sources of bleeding were secured by ligature, except the oozing, which the compression of the dressing would control, the constrictor was again tightened, a twist of sterilised gauze packed into the cavity of the acetabulum and brought out through the outer part of the wound, and the operation completed by silkworm gut sutures and antiseptic dry dressing.

The time consumed was fifty minutes; the antiseptic was ether (only a small quantity was used—in all about ten ounces); the pulse was strong, full, and regular when the patient was put to bed at noon. Two hours later, after consciousness was restored, the pulse suddenly and rapidly increased in frequency, a profuse perspiration was present, and shock supervened, in which condition, without response to hypodermatic stimulation, he sank and died twenty-eight hours after the operation. This was my fifth (and only fatal) hip-joint amputation by this method. In addition to the case herewith reported, the operation by this method has been performed forty-two times with a death-rate of 21·42 per cent. (Six were re-amputations.)

| | Cases. | Deaths. | Per cent. |
|---|---|---|---|
| Sarcoma ... ... ... ... ... | 18 | 2 | 11·1 |
| Inflammatory bone disease ... | 19 | 3 | 15·78 |
| Violence ... ... ... ... ... | 4 | 4 | 100·0 |
| Nerve injury ... ... ... ... | 1 | 0 | —— |
| For disease ... ... ... ... ... | 37 | 5 | 13·51 |
| For injury ... ... ... ... ... | 4 | 4 | 100·0 |

Ashhurst's table of 633 cases gives a total mortality of 64·1 per cent.

| | Cases. | Death-rate per cent. |
|---|---|---|
| For disease ... ... ... ... ... | 276 | 40·2 |
| For injury ... ... ... ... ... | 309 | 82·4 |

Luning gives:—

| | Cases. | Death-rate per cent. |
|---|---|---|
| Gunshot wounds ... ... ... ... | 239 | 98·0 |
| Disease ... ... ... ... ... | 153 | 42·0 |

As the method is yet so little known I hope I may be pardoned for adding the following comments by those who have employed it. Professor W. W. Keen, who employed this operation successfully at the Jefferson Hospital, Philadelphia, in January, 1892, for an enormous sarcoma of the thigh (the patient being five months pregnant at the time), in reviewing all the methods of controlling hæmorrhage, said:[1] "It was reserved for an American surgeon to devise what is undoubtedly the best method, and in fact what I think we can call now the only method of hæmostasis in amputation at the hip-joint." Professor J. B. Murdoch of Pittsburg, who has four times performed hip-joint amputation, and once by my method, says:[2] "I believe this method to be the best, and the one destined to supersede all other methods for the temporary arrest of hæmorrhage." Professor W. F. Fluhrer[3] emphasised "that as little blood had been lost as in an ordinary amputation at the middle of the thigh." Professor McBurney[4] expressed the opinion that "no other appliance that had been suggested for the purpose could in any way compare in utility with that of Dr. Wyeth's." Professor Emory Lanphear of Kansas City, who has four times amputated at the hip by this method, says:[5] "This operation (Senn's)[6] is certainly better than any other yet devised, save that which is known as the 'Wyeth bloodless method,' by which method failure to control hæmorrhage seems to me to be impossible." Professor McFadden Gaston of Atlanta says:[7] "There was absolutely no trouble from hæmorrhage ..... and I feel satisfied that with this process all bleeding may be prevented in amputation at the hip-joint." Dr. B. Merrill Ricketts of Cincinnati writes me that "the operation was entirely bloodless." Dr. W. B. Johnston of Ellicottville, New York, writes: "There was not one drop of arterial blood, and only a slight venous oozing from the muscular tissue." Professor H. O. Walker: "We have in this a safe and reliable method for controlling hæmorrhage, which, in my judgment, is superior to any yet offered." By personal communication Professors McCosh, Baxter, A. M. Phelps, Hartley, Parham, and Holloway have expressed themselves that the method meets every requirement in the prevention of loss of blood. The question of shock is very important in this major operation. It is strongly brought out by Professor Murdoch, who insists that "the greatest care must be exercised to maintain the vital forces by the moderate use of stimulants before the operation and the protection of the surface of the body from cold and exposure during its performance." To this should be added the minimum of anæsthetic and the maximum of rapidity in technique consistent with thoroughness and the prevention of bleeding. When ether is employed the Ormsby inhaler secures the safest narcosis with the smallest amount of ether.

In regard to the use of the steel skewers, while not absolutely essential, they add an element of security which should not be disregarded. Dr. Lanphear succeeded in holding the constriction in place with only one (the outer) needle. Dr. Deaver was equally successful in holding the tubing well up by two strips of roller bandage, one before and one behind, held by an assistant, and thus dispensing with the needles. As the pressure of the constricting rubber is considerable they should be strong. Dr. A. T. Bristow of Brooklyn informs me that on one occasion a skewer of inferior quality gave way, and hemorrhage was narrowly averted.

In the formation of flaps the surgeon must be guided by the condition of the parts within the field of operation. When permissible the following method seems ideal.[8] About six inches below the tourniquet a circular incision is made, and this is joined by a longitudinal incision commencing at the tourniquet and passing over the trochanter major. A cuff that includes the subcutaneous tissues down to the deep fascia is dissected off as high as the tourniquet. At about the level of the trochanter minor the remaining soft parts, together with the vessels, are divided down to the bone by a circular cut, and, in order to facilitate the search for the vessels, the soft parts are rapidly removed from the femur for several inches below the line of the divided muscles. At this stage of the operation the larger vessels, veins as well as arteries, should be tied with good-sized catgut.[9] Before concluding the consideration of the technique I wish to emphasise a point of great importance. When, by reason of severe hæmorrhage before operation, or from any pathological anæmia or condition of weakness, the operation should be rapidly completed and the small amount of blood that will necessarily be lost from capillary oozing should be saved, sutures of silkworm gut should be rapidly introduced, the wound packed with hot, sterilised, plain gauze (not iodoform or bichloride gauze), and the

[1] The Medical News, March 26th, 1892.
[2] Annals of Surgery, January, 1893.
[3] International Journal of Surgery, 1890.
[4] Ibid.
[5] Kansas City Medical Journal, May, 1893.
[6] This method, devised by Professor N. Senn, requires an incision eight inches in length, commencing three inches above the trochanter; the capsule, trochanter, and upper portion of shaft are exposed, the trochanteric muscular attachments severed, the digital fossa emptied, the capsule divided, and the head of the femur dislocated before any constriction for the control of hæmorrhage is attempted. I do not think that this method will be received with favour by surgeons. The only instance in which it has been applied, to my knowledge, was by Dr. W. D. Foster of Kansas City. "The patient was the subject of chronic coxitis, was much emaciated, and very weak. The operation was tedious, protracted, and bloody, and the patient survived between three and four hours." (Private communication.)
[7] Transactions, Alabama State Medical Association, 1892.
[8] At Bardstown, Ky., in August, 1806, Dr. Walter Brashear amputated at the hip in a negro lad seventeen years old on account of a severe fracture of the femur and laceration of the soft parts. A circular incision was made, the muscles were divided well below the hip-joint, and the vessels secured as the operation progressed. Then a longitudinal incision along the outer side of the limb exposed the remainder of the bone, which, being freed from its muscular attachments, was disarticulated at the socket (Professor D. W. Yandell, in American Practitioner and News, 1890). Dieffenbach's name has been prominently associated with this operation among surgeons, but Dieffenbach did not take his degree in medicine until 1822, sixteen years after the pioneer Kentuckian had performed his operation, which was the first hip-joint amputation in the United States.
[9] I employ catgut in all cases and have never had a secondary hæmorrhage.

NOTE.—Brashear of Kentucky, in 1806, was undoubtedly the first surgeon to apply a constricting tourniquet near the hip, amputate the thigh, secure the vessels, remove the tourniquet, and then enucleate the remaining portion of the femur. Although unknown to me at the time my first operation was originated, I desire to give him full credit as the pioneer in this method. I employed the rubber tubing and secured it in place beyond all accident by strong steel skewers. It will be seen, however, that, as developed since my first paper in 1890, the operation is considerably modified and improved, and is now not only original but novel. 1894.

TABLE.—BLOODLESS AMPUTATION AT THE HIP-JOINT.

| No. | Operator. | Date. | Age. | Sex. | Diagnosis. | Result. | Remarks. |
|---|---|---|---|---|---|---|---|
| 1 | John A. Wyeth. | Feb., 1890 | 39 | Male. | Osteo-sarcoma. | Recovered. | At first operation femur was divided at level of lesser trochanter; sixteen days later head of the bone was enucleated. |
| 2 | John A. Wyeth. | Feb., 1890 | 34 | Male. | Neuro-sarcoma of internal popliteal nerve. | Recovered. | The tumour of the nerve was extirpated February, 1888; recurred, and limb was amputated at lower third of thigh October, 1888; recurred again, and amputation at hip-joint was performed. |
| 3 | John A. Wyeth. | 1892 | 17 | Female. | Osteo-sarcoma of lower end of femur; amputation and recurrence in stump. | Recovered. | Amputation through lower third of femur was performed by Dr. Allen, of Cleveland, February 5th, 1892 |
| 4 | John A. Wyeth. | Nov., 1893 | 28 | Male. | Chronic hip-joint disease. | Recovered. | The femur was so firmly anchylosed to the ilium that force could not break them apart, requiring a chisel and hammer to effect separation. |
| 5 | Wm. F. Fluhrer. | May, 1890 | 18 | Female. | Osteo-sarcoma of femur. | Recovered. | Spontaneous fracture at middle of thigh April 26th, 1890. |
| 6 | Charles McBurney. | May, 1890 | 34 | Male. | Osteo-sarcoma. | Recovered. | —— |
| 7 | Frank Hartley. | March, 1892 | 26 | Female. | Osteo-sarcoma. | Recovered. | —— |
| 8 | Merrill Ricketts. | Feb. 2, 1895 | 23 | Female. | Osteo-sarcoma. | Recovered. | —— |
| 9 | C. A. White. | May 26, 1891 | 23 | Male. | Osteo-sarcoma. | Recovered. | Patient was up and about after operation, but on twenty-seventh day was seized with pneumonia and died five days later. |
| 10 | A. M. Phelps. | 1891 | 55 | Male. | Osteo-sarcoma. | Recovered. | —— |
| 11 | W. W. Keen. | Jan., 1892 | 30 | Female. | Osteo-sarcoma. | Recovered. | Patient was five months pregnant at date of operation. |
| 12 | M. J. Ahern. | 1892 | 22 | Male. | Osteo-sarcoma. | Recovered. | —— |
| 13 | J. B. Murdoch. | Feb., 1892 | 17 | Male. | Osteo-sarcoma. | Died. | Death from shock twenty-two hours after operation. |
| 14 | Chas. B. Nancrede. | Nov., 1892 | 32 | Male. | Osteo-sarcoma. | Recovered. | —— |
| 15 | J. McFadden Gaston. | Nov., 1890 | — | Male. | Osteo-sarcoma. | Died. | Death on twenty-sixth day, from septicæmia. |
| 16 | A. J. McCosh. | 1892 | 27 | Male. | Osteo-sarcoma. | Recovered. | —— |
| 17 | A. M. Phelps. | Dec., 1891 | — | Male. | Long-standing destructive osteo-arthritis. | Recovered. | —— |
| 18 | A. M. Phelps. | 1892 | — | Male. | Osteo-myelitis of entire femur. | Died. | Death from exhaustion twelve hours after operation. Condition of this patient was so bad that operation was contra-advised, but was performed at urgent request of parents. |
| 19 | Emory Lanphear. | 1890 | 9 | Male. | Osteo-myelitis of femur. | Recovered. | —— |
| 20 | Emory Lanphear. | 1892 | 15 | Male. | Osteo-myelitis of femur. | Recovered. | —— |
| 21 | Emory Lanphear. | 1893 | 28 | Male. | Osteo-myelitis of femur. | Recovered. | —— |
| 22 | Chas. B. Nancrede. | 1893 | 31 | Male. | Osteo-myelitis of femur. | Recovered. | —— |
| 23 | Samuel H. Pinkerton. | 1892 | 17 | Male. | Tuberculous osteitis of femur. | Recovered. | —— |
| 24 | Samuel H. Pinkerton. | 1892 | 10 | Male. | Tuberculous osteitis of femur. | Recovered. | —— |
| 25 | Samuel H. Pinkerton. | 1892 | 42 | Male. | Extensive necrosis of femur. | Recovered. | —— |
| 26 | Samuel H. Pinkerton. | 1892 | 43 | Male. | Extensive necrosis of femur. | Died. | Death twelve hours after operation, from shock. |
| 27 | Samuel H. Pinkerton. | 1892 | 17 | Male. | Osteitis of femur. | Recovered. | —— |
| 28 | J. Ewing Mears. | 1892 | 10 | Male. | Chronic osteo-arthritis of hip. | Recovered. | —— |
| 29 | Archibald E. Mallock. | 1892 | 30 | Male. | Chronic osteo-arthritis of hip. | Recovered. | Operation lasted thirty-five minutes. |
| 30 | John B. Deaver. | 1890 | 20 | Female. | Chronic osteo-arthritis. | Recovered. | —— |
| 31 | John B. Deaver. | 1893 | 20 | Male. | Osteo-myelitis of femur. | Recovered. | —— |
| 32 | R. L. Swan. | 1892 | 19 | Female. | Chronic osteo-arthritis of hip. | Recovered. | —— |
| 33 | G. A. Baxter. | 1891 | 17 | Male. | Railroad pulpification of right foot, leg, and left lower extremity as high as middle of thigh. | Died. | Patient rallied well; four hours later raised himself in bed to reach a glass of water and instantly expired. |
| 34 | W. B. Johnston. | 1892 | 39 | Male. | Railroad pulpification of lower extremity, as high as middle of thigh. | Died. | Death ninety hours after operation, from shock and exhaustion. |
| 35 | J. D. Thomas. | 1891 | 18 | Male. | Femoral vessels divided in Scarpa's triangle by red-hot bar of iron; impending gangrene. | Died. | Great hæmorrhage from the accident. On seventh day after injury, amputation; death thirty-six hours later. |
| 36 | Samuel H. Pinkerton. | 1892 | 6 | Male. | Compound comminuted gunshot fracture of femur. | Died. | Two hours after operation death from shock. |
| 37 | Emory Lanphear. | 1892 | 23 | Female. | Osteoma of femur penetrating sciatic nerve. | Recovered. | —— |
| 38 | H. O. Walker. | 1892 | 14 | Male. | Osteo-sarcoma. | Recovered. | —— |
| 39 | H. O. Walker. | 1893 | 21 | Male. | Chronic hip-joint disease. | Recovered. | —— |
| 40 | H. O. Walker. | 1895 | — | Young man. | Chronic hip-joint disease. | Died. | Exhaustion in four hours. |
| 41 | F. W. Parham. | Oct. 5, 1895 | 3 | Male. | Osteo-sarcoma. | Recovered. | —— |
| 42 | J. M. Holloway. | Nov., 1892 | 27 | Male. | Osteo-sarcoma. | Recovered. | The patient was discharged from hospital on tenth day and went to his home, a distance of seventy miles, on the twelfth day after operation. |

sutures temporarily tightened for snug compression of the wounded surfaces. This packing at once controls all oozing and can be removed in from twenty-four to forty-eight hours after reaction and the sutures finally secured.

## WHAT SHOULD BE CLASSED AS DANGEROUS INFECTIOUS DISEASES?[1]

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ALL infectious diseases are dangerous to the public in regard not only to the deaths they cause, but to the suffering and ill-health they give rise to, and ought to be notified, so that, theoretically at least, they may be prevented by subsequent isolation, disinfection, and the other preventive measures with which we are all well acquainted. I repeat that all these infectious diseases can be stamped out and prevented theoretically; but what we have to consider is the practical bearing of the subject—the best results to be obtained practically under present existing conditions and with the present means at our disposal. Such is the subject I intend to deal with. The Notification Act of 1889, Section 6, gives as infectious diseases the following: "Small-pox, cholera, diphtheria, membranous croup, erysipelas, the disease known as scarlatina or scarlet fever, and the fevers known by any of the following names: typhus, typhoid, enteric, relapsing, continued, or puerperal; and includes, as respects any particular district, any infectious disease to which the Act has been applied by the local authority of the district in manner provided by this Act." The latter half of this section applies to such infectious diseases as measles, whooping-cough, diarrhœa, phthisis, cancer, Influenza (with a capital I), leprosy, &c., and it must be remembered that it is to some of these at present non-notifiable infectious diseases that the high zymotic death-rate is chiefly due. The above-mentioned infectious diseases of the Notification Act become in a later Act—e.g., the Public Health (London) Act, 1891, Sections 58–74—*dangerous* infectious diseases, and of these I will treat in the above order as nearly as possible, pointing out at the same time those that I do not think ought to be so included—at least for the present.

*Small-pox &c.*—With an unprotected element gradually, but certainly, increasing, small-pox, by virtue of its extremely loathsome character and disfiguring tendencies, is perhaps the most important disease with which we have, or shall have, to deal; but in this connexion I would point out that in semi-protected persons this disease may assume such protean (modified) forms that the differential diagnosis between it and chicken-pox may become extremely difficult, if not at times well-nigh impossible. Such being the case, chicken-pox might with advantage, at least in times of epidemics, be classified as a dangerous infectious disease, and its notification be made consequently compulsory. In the same way and under the same conditions diarrhœa and sore-throat might be so classed in connexion with epidemics of the more serious diseases—cholera or typhoid fever, and diphtheria or membranous croup (this latter disease being an affection of the air passages indistinguishable in my opinion from diphtheria in origin). The difficulty in epidemic periods of drawing a line between diphtheritic and non-diphtheritic throats, between choleraic diarrhœa and true cholera, between chicken-pox and modified small-pox, is well known to us all, but personally I look forward with great hopes to these difficulties in the near future being dispelled by bacteriological diagnosis. The importance of this advance in the matter of children attending school is apparent. Bacteriological examination will be applicable in the same way to cases of cholera or suspected cholera, and will—in the near future, I hope—be applicable to chicken-pox and modified small-pox, now that we are on the point of capturing, if we have not already captured, the germ of small-pox.

So much for small-pox, cholera, diphtheria, or membranous croup, about the dangerous infectious nature of which there is no doubt, and for which notification, isolation, disinfection, and quarantine, or medical inspection, are all-important, more especially when the first step (notification) is successfully and carefully carried out, and that, too, by the bacteriological methods mentioned above, if required. In this connexion I may mention, as a matter of interest, that in New South Wales there is a Notification Act (restricted to small-pox, however) requiring householders and medical practitioners "forthwith to report every case which may be reasonably supposed to be small-pox," the responsibility then being removed from the practitioner to the Health Department. Some such wording in our Acts would be useful until such time as diagnosis became more certain or the rising generation of medical men more educated in infectious diseases.

*Erysipelas.*—As regards this disease, I am bound to confess that I fail to see the use of notification or of including it in the list of those which are dangerously infectious. Does the disease spread from individual to individual? The majority of cases notified in Leicester are trifling in character and have no real bearing upon public health. Further, some of the cases are apt to recur, and so repeated notifications for the same patients are sent in. Erysipelas might in my opinion with advantage be expunged from the list of dangerous infectious diseases. In Leicester the notification of this disease has cost £574 for 4592 certificates during the last fifteen years.

Scarlet fever, typhus fever, typhoid or enteric fever, and relapsing fevers (the last three constituting the group of continued fevers) may all be classed with the first group I have named—viz., small-pox, cholera, diphtheria or membranous croup, as dangerous infectious diseases requiring the stringent preventive measures mentioned above.

*Puerperal fever.*—Regarding this disease I confess I agree with Drs. Herman and Cullingworth in looking upon it as a wholly preventable disease—a blood poisoning due to the introduction from without of a particulate poison, which gives rise to a severe febrile illness, occurring soon after, and being dependent upon, delivery. The carrying medium may be the hands, instruments, dressings, &c., and the disease is due to want of proper cleanliness and antiseptic precautions. That the disease depends upon a micro-organism is highly probable, but such organism can only be transferred by contact—and this transference can be prevented by cleanliness and the use of antiseptics. Notification is certainly useful, so that inquiries may be made, and preventive measures taken, if necessary, in regard to medical men, nurses, and midwives. The disease, however, ought in my opinion not to exist at all.

So much for the so-called "dangerous" infectious diseases, about which there ought to be practically no difference of opinion; and now I will deal with those about which opinions differ considerably at the present day, foremost among which are measles and whooping-cough, diseases which have high mortalities and widespread epidemic prevalence. In both these respects these two diseases ought to be preventable. But how? Notification is suggested, and would doubtless be useful, but not in the sense that it is useful in the diseases I have already considered. For instance, in measles notification (more especially early notification) would be useful in warning us of an approaching epidemic; in enabling us to close certain schools (elementary or otherwise) if necessary; in bringing together a close relationship between the health departments and the people, thereby enabling precautionary instructions to be given (and of course carried out) as to the dangers of measles, so as especially to prevent exposure to chills; in enabling us to isolate the other children in a household and to keep them away from school; in carrying out disinfection of houses, bedding, clothes, &c.; and, in fact, in generally drawing the attention of parents to the seriousness and dangers of measles, and so disabusing their minds of the extreme folly of looking upon measles as a disease to be "got over," and doing away with the apathy that unfortunately exists in regard to this particular disease. Insanitary arrangements, again, would be discovered by our inspectors, and it must be remembered that insanitary surroundings *indirectly* increase largely the mortality from this disease. It is true that we must trust to "home" isolation such as it is, for in this disease at present hospital isolation, with its attendant expenses, would be practically impossible, not only on account of numbers and the early age of the patients, but also on account of the intensely infectious early stage (pre-eruptive) of the disease leading to rapid spreading, and its long incubation period. By such means as the above the mortality from measles would be diminished, though I doubt whether its incidence,

[1] A paper read at the Congress of the Sanitary Institute, Liverpool, on Thursday, Sept. 27th, 1894.

and therefore its epidemic tendency, would be lessened. Such at least is the practical experience of towns that have tried, or are trying, the experiment. Still, such an advantage as lessening the mortality would counterbalance the necessary expenditure and trouble, and, considering the high mortality from measles, anything that can be done ought to be done to lessen it. The same arguments apply practically to whooping-cough—indeed, the high mortality from these two diseases is a distinct blot on preventive medicine. In Leicester during the last twenty years we have registered 1212 deaths from measles and 1160 deaths from whooping-cough; and surely for the next twenty years there ought to be a very great improvement upon this, more especially as these diseases are pre-eminently preventable, at least in respect of their mortalities. If not, preventive medicine is indeed a failure as regards measles and whooping-cough. Without notification, however, health authorities can do nothing, and, though we are not in a position at present to follow up in every case such notification with the other well-known preventive measures known to us, I think the mere fact of knowing the localities of infected houses would enable us to effect, by means of advice &c., material good, and to satisfactorily diminish these death rates. The worst cases—those especially living under the most insanitary conditions and in the most destitute circumstances—might be removed to hospital with great advantage, even though one admits the impracticability of stamping out the disease by isolating each case as it is notified. These two diseases are also the cause of much impaired health arising from the after-effects; and if notification leads to more careful nursing and greater precautions against chills, the result will be highly satisfactory, and will tend to improve the public health of the rising generations.

Whilst fully admitting the fact that wide-spread diarrhœa may be an antecedent to epidemics of typhoid fever or cholera, and therefore, if notified, may lead to the knowledge, and perhaps to the prevention, of a coming epidemic storm, I do not think that with us such stringent precautions are necessary—more especially considering the rarity not only of cholera but also of serious typhoid fever epidemics. Further, in infantile (or epidemic) diarrhœa nothing is to be gained from notification—the average duration of the disease being so short and its supposed etiology so involved. This disease, further, can hardly be described as infectious, though it is most probably due to a micro-organism.

In phthisis we have a disease that is undoubtedly infectious and might, therefore, be notified, so that precautionary measures might be taken as in the case of measles and whooping-cough; to follow up such notification, however, with other strict measures would be not only irksome and intolerable to the patients themselves, but also useless to the community at large. Phthisis is spread chiefly, if not entirely, by contact, and with ordinary precautions this spread is preventable, so that it is sufficient for our purpose to know the localities of infected houses, in order that such ordinary but highly necessary precautions may be taken. Strict isolation in this disease is not necessary, whilst disinfection is in some places even now carried out on death returns.

In cancer, whether the so-called "organism" is a protozoon or a product of cell metamorphosis, the etiology is so obscure that we may, for the present at least, regard the disease as not infectious, and therefore not to be notified.

Epidemic influenza is a highly infectious disease with a high mortality rate (direct or indirect) and an extremely short incubation period. The disease is in every way comparable with measles, with the exception that, whereas a bacillus is assumed in the latter, it has been isolated and carefully investigated in the former. Isolation of this disease is all-important, but practically impossible—at least, in hospitals—owing to the mild nature of some of the cases and the extreme infectivity of the early stages. Home isolation and strict precautionary measures—e.g., disinfection of sputum and nasal secretions—must be trusted to, and to enable these to be the better enforced notification would certainly be of advantage.

The last disease I shall touch upon is leprosy, and I shall content myself with saying that New South Wales is grappling with this disease satisfactorily by means of an Act passed in 1890 "providing for the notification, detention, and isolation of leprosy cases, with the appointment of lazarets." Such are the lines to go on.

In conclusion, although I look upon all infectious diseases as dangerous more or less, it is of advantage to divide them into two classes—viz., (*a*) *dangerous* infectious diseases, and (*b*) *ordinary* infectious diseases; including under the first heading those diseases which require the most stringent means for their prevention—viz., notification, isolation, disinfection, quarantine or medical inspection, and scientific inoculation. Under this heading we have small-pox, cholera, diphtheria or membranous croup, typhus, typhoid (enteric fever), relapsing or continued fevers, leprosy, and perhaps the disease known as scarlatina or scarlet fever; whilst under the second heading we have diseases that are no doubt infectious, but only to such an extent that ordinary precautions may with advantage be taken, or with which the circumstances—e.g., extreme infectiousness of early stages, tendencies to rapid spreading, &c.—are such that under existing conditions it would be practically impossible to have strict preventive measures carried out. In all these cases I am of opinion that notification is required, with the two exceptions, perhaps, of erysipelas and cancer. Under this second heading I include measles, whooping-cough, epidemic influenza, phthisis, and puerperal fever. Diarrhœa, chicken-pox, and sore throat may with advantage be made notifiable under epidemic conditions of cholera and typhoid fever, small-pox, or diphtheria respectively.

Leicester.

# ADDITIONAL CASES OF PERFORATING ULCER OF THE DUODENUM.[1]

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FOR the successful treatment of perforating ulcer of the duodenum many additions to our knowledge are required. Every case of this strange malady ought to be recorded, especially those which receive surgical treatment. Hitherto all of these have ended fatally until Mr. Percy Dean[2] brought one to a successful issue. I now propose to describe briefly a case which, although fatal, has afforded me some encouragement, and another in which the symptoms were so anomalous and misleading that a diagnosis could not be made. I have elsewhere described two other cases in which I performed laparotomy for diffuse septic peritonitis due to perforating ulcer of the duodenum.[3] The following are the brief notes of the case in which the symptoms were misleading.

CASE 1.—The patient was a man twenty-eight years of age, an omnibus conductor. He had always had good health until May last, when he began to feel unwell, but with no definite complaint. On July 4th he was seized with sudden pain in the abdomen whilst ascending his omnibus, and felt sick. An emetic was administered by a druggist, which made him vomit. His bowels failed to act, although enemata were ordered by a medical man, until July 8th, when an enema brought away some lumps of fæces and a little flatus. On July 10th he was admitted into St. Bartholomew's Hospital. When I saw him he looked a strong and vigorous man; but his expression was anxious, and he tossed about restlessly. He obviously had acute intestinal obstruction. He vomited occasionally, passed neither flatus nor fæces, and his abdomen was distended. The swollen coils of intestine could be seen bulging the abdominal wall, and they were motionless. The right iliac region was very tympanitic, and the cæcum was evidently distended with gas. Above the pubes there was a dull and fluctuating swelling, which felt like a distended bladder, but was situated rather towards the left side. This swelling was also felt in the rectum, and fluctuated freely in all directions. When a catheter was passed the bladder was empty. The abdomen was tender all over, but not more so in one place than in another. The temperature was 99·8° F., the pulse 104, and the respiration 28 per minute, chiefly thoracic, but with slight abdominal movement. The diagnosis of septic peritonitis, with an accumulation of pus in the pelvis, seemed to me to be certain. Although the patient's mind was clear I could learn nothing as to the cause of his illness. Having twice performed laparotomy and afterwards found perforating ulcers of the duodenum, I had

[1] A paper read before the Medical Society of London on Oct. 22nd, 1894.
[2] THE LANCET, May 12th, 1894, and the Transactions of the Medical Society, vol. xvii., 1894.
[3] Transactions of the Medical Society, vol. xv., 1892.

that affection clearly in my mind. But the patient said that he had never vomited either food or blood, nor had he ever voided blood. Although he had occasionally had indigestion the attacks had been slight. He had never had a definite pain in any part of the abdomen. He was quite unable to localise the pain which seized him suddenly at the beginning of his illness. There was absolutely nothing to point to anything in the upper part of the abdomen; therefore I opened the abdomen below the umbilicus. Quite a couple of pints of purulent and offensive fluid were let out of the pelvis. The cæcum, vermiform appendix, and small intestines had no holes in them. It seemed quite unreasonable to carry the wound upwards, because the higher I searched the less peritonitis was found. The abdomen was irrigated and drained, and the wound closed. He was for a time much relieved by this operation, and his temperature became normal, but afterwards the septic peritonitis made fresh headway, and he died fifty-four hours after the operation, the temperature having gradually ascended to 102·2°.

*Necropsy.*—At the post-mortem examination the abdomen might have been divided into three zones. In the lower was the area of septic peritonitis which I had attacked; in the middle was a wide zone almost free from peritonitis; and, lastly, there was beneath the liver an upper zone in which there was much septic peritonitis. This had evidently spread from a large abscess between the duodenum and the neck of the gall-bladder. This abscess communicated by a long suppurating track with the interior of the duodenum. The opening into the duodenum was by an ulcer half an inch in diameter, situate three-quarters of an inch from the pylorus and in the upper part of the duodenum. There was a second and smaller ulcer at the pyloric ring. It had eaten as far as the muscular coat, and was accompanied by some cicatricial contraction. Neither Mr. Berry nor myself could see how the upper zone of septic peritonitis had communicated with the lower. Beyond what has been described the body was quite healthy. In giving these brief details I have been greatly helped by Mr. Maxwell's admirable notes.

*Remarks.*—The course of events in this case seems to be fairly clear. Doubtless during May and June, when the patient felt unwell, the ulcers formed. Whilst ascending his omnibus the large one perforated, and a localised peritonitis occurred beneath the liver, in a locality rather favourable to localisation. Next, in some unknown way, pus or intestinal contents gravitated into the pelvis (without leaving a trace in the middle zone of the abdomen) and caused the extensive peritonitis and abscess which led me to think that, whatever the cause of the disease might be, it was situated low down and not high up. The total absence of clinical signs of disease above heightened this delusion. Although the ulcer was hard to define, owing to the abscess and peritonitis, yet I have come to the conclusion that it could have been found and closed.

The following case is one in which I succeeded in such an attempt. The situation of the ulcer and perforation were approximately diagnosed; laparotomy was performed, and the ulcer was easily found and closed. The operation ended fatally in fifty-seven hours, from causes which might, perhaps, with better knowledge, have been averted.

CASE 2.—The patient was under the care of Dr. West, for whom I operated. He was a thin, worn, anæmic man, sixty-one years of age. He had grey hair, sharp features, and was evidently not a good subject for a severe operation. He had been treated by Dr. Roberts and Mr. Segundo as a casualty patient for a chronic gastric ulcer, with the usual pain and vomiting after food, but without hæmatemesis or melæna. On Sept. 12th, 1894, at 9.45 A.M., whilst at work, he was seized with a sudden pain in the abdomen, which he located beneath the right costal cartilages. He became faint and ill and was unable to relieve his bowels. When I saw him at 2 P.M. he was profoundly collapsed, with a rapid, feeble pulse, cold extremities, and a clammy sweat. The temperature had been 95° F., but rose to 98° before the operation. The patient complained of an agonising pain in the upper abdomen and said it was worst in the right hypochondrium. With these symptoms and history I had no hesitation in opening the abdomen. To prepare him for the operation brandy and strychnine were given, the latter subcutaneously and the former by the rectum. He was also placed upon a hot water-bed, and all the appliances were kept thoroughly hot. An incision six inches long was made above the umbilicus and a little to the left of the middle line to avoid the falciform ligament. Some flatus and opaque fluid at once escaped, and, partly guided by the stream of fluid and partly by the touch, a small perforating ulcer was found upon the front of the duodenum, about three-quarters of an inch from the pylorus. Mr. Wilson, the house surgeon, to whom I am much indebted for most efficient help, pulled the pylorus slightly to the right, and then there was no difficulty in closing the ulcer with four Lembert's sutures. At this stage I was greatly helped by a device taught me by Mr. Marmaduke Sheild. The edge of the wound was retracted to the right by a strong silk ligature passed through all its layers. The operation lasted thirty-five minutes. It was completed by washing out the abdomen, especially the right flank and the pelvis, with water at a temperature of 112°, and a glass drainage-tube was put in and the wound closed. At the beginning of the operation Mr. Buttar gave a little chloroform and afterwards went on with ether. At its close an enema of brandy and a little opium was given, and the patient was conveyed to bed surrounded with hot-water bottles. He soon revived and was free from the agonising pain. He was fed every three hours with nutrient enemata. On Sept. 13th he slept for four hours and took champagne by the mouth. His bowels acted after one of the enemata. On the 14th he seemed to be better and we entertained hopes of his recovery, but towards evening his pulse failed, he became unconscious, and died at 12.45 A.M. on Sept. 15th, after having vomited 15 oz. of bright-coloured blood.

*Necropsy.*—At the post-mortem examination Mr. Berry found the sutured ulcer firmly closed and able to bear a strong pressure of water. It was eleven-sixteenths of an inch long by seven-sixteenths of an inch broad. There was a second ulcer of the same kind and of the same size upon the back of the duodenum. It had eaten as far as the peritoneal coat and made the bowel translucent. Both ulcers were just beyond the pylorus. The neighbouring mucous membrane was congested. It was clear that the patient had died from septic peritonitis, set up by the contents which had escaped from the duodenum before the operation. There was a good deal of purulent fluid and lymph behind the right lobe of the liver and in the pelvis. The lesser sac of the peritoneum and all the other organs were healthy. The source of the hæmorrhage was not discovered. I am indebted to Mr. Segundo's clear notes for most of these particulars.

*Remarks.*—The above leaves a doubt in the mind as to whether the abdomen was efficiently washed out. The whole abdomen was so slack and so easy to reach that when washing it out I thought the pelvis and left flank had been reached. The question of draining the pelvis was fully entertained, but dismissed because the washing out seemed efficient. However, in another case I should drain the pelvis. It could hardly make the prognosis worse, and would not only help the washing out but would also prevent an accumulation. The corners about the liver also seem to demand more attention. Nevertheless, it must be owned that a man sixty-one years of age, whose condition is well-nigh desperate, cannot offer much resistance to peritonitis when once it has begun.

In March, 1892, I made a post-mortem examination upon the body of a man who had been under the care of Mr. Langton, who, with his usual kindness, has allowed me to refer to it. The patient was fifty-six years of age, and had been brought into St. Bartholomew's Hospital with a distended abdomen and the usual signs of acute intestinal obstruction. There was nothing which pointed to a lesion in the upper part of the abdomen. The previous history was obscure. At the operation an inguinal hernia on the right side was explored, but nothing was found. The incision was, therefore, carried upwards and outwards for seven inches, and the cæcum and neighbouring peritoneal cavity were explored. A quantity of purulent and feculent fluid and other signs of septic peritonitis were found, but the man was too ill to allow the source of these to be discovered. He died a few hours after the operation. At the post-mortem examination I found general septic peritonitis with much feculent fluid in the loins and pelvis. The lesser sac was much inflamed, and lymph and purulent fluid were present. Upon the front of the duodenum, half an inch from the pylorus, was an ulcer three-quarters of an inch long and half an inch wide, with its long axis parallel to the pyloric ring. This had perforated and was the cause of the peritonitis. Its edges were clean cut, and the tissues in its vicinity were apparently normal. It could easily have been sutured. There was much lymph around the ulcer, upon the under surface of the liver, and upon the front of the duodenum. The other organs were

healthy. I am indebted to Mr. Fraser for help in obtaining the notes of this case. Amongst other things this case suggests that it may be necessary to wash out and drain the lesser sac. This could best be done by tearing through the great omentum below the stomach. An exploration through Winslow's foramen might determine the necessity for this step, which, after all, is not a very serious one.

In concluding the notes of these cases it is interesting to remark that in one the ulcer was easily and securely closed, and the patient's life prolonged rather than shortened, and that the other ulcers could likewise have been closed had they been diagnosed. So far as can be judged in anomalous cases the diagnosis can as yet only be correctly made through an incision. A small exploratory incision through the linea alba above the umbilicus is such a trifling addition to the risks of such cases that it seems to be reasonable in future to try it. The kind of case would be one in which laparotomy had shown that diffuse septic peritonitis existed in the lower abdomen, with no recognisable or probable cause there.

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## LANDERER'S METHOD OF TREATING FRACTURES.

BY JOSEPH LUMNICZER, M.D.

UP to a comparatively recent date one has been unable to shorten the time required for the healing of a fracture. While the treatment of compound fractures has been completely changed by the antiseptic method, so that brilliant results have been attained, the treatment of simple fractures has been almost untouched by the progress of science. For the treatment of fractures Landerer has introduced a new therapeutic method easy of application and excellent in its results. In the Second Surgical Clinic in Budapest, from 1880 to 1891, 552 simple fractures were observed, and from these the following data were obtained. To fix the time of healing of a fracture two dates can be taken — viz.: (1) the time when the callus between the ends of the broken bone has fully developed, so that no abnormal mobility can be detected, and (2) the time when the functional activity of the limb is restored. The time when the patient is discharged from the hospital is of little value as a criterion of the time required for healing, as many personal and local circumstances influence it greatly. The return of functional activity of the limb is the surest test of the time required for the healing of a fracture. In general the time required for the complete return of functional activity after the bones had joined formed from one-third to two-thirds of the time occupied in the junction of the fragments. It was not always possible to fix the moment of return of functional activity in fractures of the upper limb, as many patients were discharged as soon as the bones had joined, and were treated as out-patients; but in fractures of the lower extremity the patients remained under observation until completely healed.

From a consideration of these data it was evident that the slighter bones need less time than the larger ones. In the cases observed the longest time for union was required in a case of fracture of the femur (57 days), and the shortest with a fracture of the metatarsus (23 days) and clavicle (24 days), in the forearm and fibula (35 days), in the tibia (39 days), and in the patella (52 days, chiefly fibrous union). After the union of the bones a further period was needed—viz., for the patella 83 days, the femur 81 days, the humerus and tibia 62 days, the fibula 59 days, and the ulna and clavicle 39 days. The average further period required for active mobility amounted in the forearm to only half the time needed for union of the bones—namely, 15 to 32 days; elsewhere it takes about two-thirds—viz., in the case of the clavicle, radius, and ulna from 15 to 17 days; and in the humerus and femur 28 to 30 days. With a slight inaccuracy we can get the time of commencement of functional mobility if we add to the time required for consolidation 15 days for the clavicle and bones of the forearm and 30 days for the humerus and bones of the lower extremity.

Landerer's method, as described below, was the outcome of an attempt to shorten the healing time of fractures. According to this method (1) the ends of the bone are to be replaced immediately after the fracture and to be fixed in a firm dressing (such as plaster-of-Paris) until the disappearance of the swelling due to the injury; and (2) when the soft provisional callus is fully formed (which takes place in from eight to fourteen days) the callus and the surrounding muscles are to be massaged twice a day—at first gently, but later more energetically; and the mobility of the neighbouring joints is to be kept up by active and passive movements. When this is done it is noticed that the callus, which during the first few days was soft and yielding, soon hardens and becomes strong, and the neighbouring joints, at first somewhat stiff, rapidly recover their original mobility. This treatment was employed in 93 cases at the Second Surgical Clinic—i.e., in 89 cases of simple and 4 cases of compound fracture. In all these cases special care was used to determine accurately the date of union of the bones, and also the date of return of complete functional activity. In the compound fractures, after rendering the wounds aseptic and applying dressings, the fractures were put up, and in from two to three weeks the soft parts had made such progress that passive movements and massage could be employed, and the results were as satisfactory as in the case of simple fractures.

The general results of this treatment may be summarised as follows. Fixation of the bones took in general from 12 to 36 days, the shortest time being 12 days for the clavicle and the longest 57 for the femur. Functional activity was attained in 14 days for the clavicle, but took 51 days for the femur. The time between consolidation and functional activity generally was not more than 10 days, with the exceptions of the femur (15 days) and the bones of the forearm (13 days). These results show that with this treatment consolidation and functional activity were attained at a much earlier period than was the case under the old treatment. For consolidation under the former treatment from 24 to 57 days were required, while in the cases just referred to it varied from 12 to 36 days, the difference amounting to from 6 to 21 days. The greatest difference is found in the case of the femur and tibia, where consolidation occurred 21 and 19 days earlier respectively. But the benefit of the new treatment is still more manifest if we compare the periods required for attaining complete functional activity. Under the former treatment from 39 to 83 days were needed, but now only from 14 to 51 days. Thus by Landerer's method one effects a saving of time in consolidation of one-third and of a third also for mobility. During the period of healing one could assure oneself of the condition of the callus; the massage perceptibly increased the rapidity of its ossification, and the stiffness of the neighbouring joints, due to the enforced resting for from six to eight days, soon disappeared, the muscles regained their elasticity, and the blood effused into the joint was quickly absorbed.

Judged by its results, the early use of massage and of passive movements is very useful. This treatment is not to be recommended in comminuted fractures or in cases where there is a very great tendency to displacement of the ends of the bones. Sometimes the massage cannot be borne more than once a day at first, but soon the tenderness disappears, and then it can be performed twice a day.

## THE INFLUENCE OF THE CLIMATE OF EGYPT UPON DISEASE.

BY LEIGH CANNEY, M.D. LOND.,
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THE object of this paper is to attempt to point out rather more in detail than has been done previously what morbid conditions are benefited by wintering in Egypt, what benefit may be expected, if any, and what cases are unsuitable. Some thirty years ago or more Dr. Dalrymple briefly stated the cases benefited by wintering in Egypt as phthisis (certain cases), bronchitis, asthma, renal disease, and cerebral softening. After that little more was done until Dr. Sandwith a few years ago published his interesting work, "Egypt as a Winter Resort," and added an appendix containing a list of suitable cases for Egypt. Since his work was published the numbers of people wintering in Egypt have increased, and every year makes it possible to be more and more precise in weighing the advantages to be attained in this climate. In cases of the rarer diseases evidence naturally comes slowly, and as to

these a decision must be made at present rather on theoretical grounds, as the number of cases recorded is too small to justify a practical conclusion. But perhaps a shrewd opinion might be formed from the relative frequency of these diseases amongst the Egyptians themselves. A very large proportion of the diseases which will be found classified below as "deriving great benefit" are such as are practically unknown to the natives of the country or are but slight in their intensity. It is hoped that these lists may be helpful to those who have not been able to visit this interesting country themselves, and may lighten the responsibility which one must feel in sending a patient to a somewhat distant land. To find that the question, "Shall I get better in Egypt?" can in most cases be answered distinctly "Yes" or "No" may prove of great value to both patient and adviser, and it will be no small satisfaction to the medical adviser who has temporarily broken up a family to see his patient back again and able to endorse his opinion of six months before. The question of what part of Egypt the several and varied cases should be sent to, and the life to be led, may be dealt with subsequently, for I imagine that the prescription "Egypt" can hardly be considered sufficient in a country 1000 miles long, presenting such different conditions as are to be found in a life in Cairo, at the Pyramids or Helouan, at Luxor or Assouan (both several hundreds of miles south of Cairo), in a *dahabeah* or steamer on the Nile, or in a tent in the desert—all presenting variations in temperature and relative humidity, and other conditions as regards accommodation, &c., which must not be neglected; and in all these matters the patient will do well to follow absolutely the advice of one of the physicians resident in the country.

A few instructions regarding the best method of spending the winter and the mode of life advisable would prevent such mistakes as the following: a patient sent out for diabetes, ascending the Great Pyramid, and so inducing coma and death; or a patient with valvular disease, ascending the Nile in a steamer and daily joining in a six or eight mile gallop on a donkey, the pace being at the mercy of the donkey boys and the rest of the party, and including a climb to the top of some *pylon*, when it might have been possible to sail placidly in a *dahabeah* without any alarming consequences; or might help the patient with gout, hepatic dyspepsia, and lithæmia to decide to lead a more active life up the Nile than sitting on the balcony of a hotel in Cairo or taking a drive to the citadel to witness the sunset.

In the lists given below I have attempted to classify the cases which "derive great benefit," "some benefit," and those which are "not suitable." This attempt combines the views of Dr. Bentley, who has resided at Mena House Hotel, Pyramids, Mr. W. Longmore, who has resided at Assouan, Dr. Sandwith of Cairo, and myself at Luxor, each having had several years' experience in Egypt; and to these gentlemen I am much indebted for so kindly placing their medical experience at my disposal, and thus adding greater weight to the opinions expressed. Doubtless the opinions of other physicians in Egypt would have thrown more light on the subject, had they been available. Of necessity there are slight differences of opinion as to some diseases, owing to the fact that the cases observed have been limited in number, perhaps, or, as in the case of diseases in which the pathology is different in different cases—e.g., "neuralgia"—if one happened to have only notes of malarial cases or rheumatic cases it would naturally appear that greater benefit had ensued than if one were only taking account of cases in which other pathological conditions predominated. But when cases have been numerous, as in phthisis, kidney disease, mental strain, &c., the consensus of opinion points very definitely in one or other direction.

### CLASS I.—THE PATHOLOGICAL CONDITIONS WHERE THE PATIENT WILL DERIVE GREAT BENEFIT.

Phthisis: (1) non-erethic[1] cases; (2) hæmorrhagic cases; (3) non-acute cases of first or second stage, especially commencing deposit without very acute symptoms; (4) chronic quiescent phthisis, with or without cavities; (5) cases associated with bronchitis. Asthma: idiopathic and symptomatic. Chronic bronchitis and emphysema. Cases convalescent from pneumonia, pleuro-pneumonia, and pleurisy, especially cases following influenza where the structures have not returned to the normal state. Chronic nasal and pharyngeal catarrh, and Eustachian deafness. Cases of mental strain, breakdown, and irritability from overwork, especially such cases when associated with gout, arterio-sclerosis, fibroid kidney, atheroma, and age. Cases of hemiplegia and paresis dependent upon vascular changes other than embolism, especially those cases which are associated in etiology with the preceding class; insomnia not dependent on heart disease; Bright's disease in all its forms other than acute; and albuminuria generally and after pregnancy. Rheumatoid arthritis, gout, and associated lithiasis and renal colic. Cases of imperfect convalescence from the acute specifics, such as scarlet fever, typhoid fever, influenza, &c., and especially if the kidneys have been involved; dyspepsia, hepatic, and lithæmia; and rheumatic fever, after the attack.

### CLASS II.—WHERE THE PATIENT WILL DERIVE BENEFIT.

Dyspepsia (chronic, atonic and chronic catarrhal); hysteria; alcoholism; hypochondriasis; neurasthenia; early cases of locomotor ataxy and sclerosis of the cerebro-spinal system; neuralgia (of rheumatic or malarial origin); premature senility; early valvular disease; "functional" heart disease; bronchiectasis; children with strumous tendency; adenoid growths; hepatic disease contracted in India, the subjects of which are returning to Europe too early in the winter; the after-results of malaria; glycosuria in gouty subjects; eczema, especially gouty forms; laryngitis and "clergyman's sore-throat"; cystitis, those cases in which distended bladder and pressure backwards have led to commencing kidney disease; chronic ovaritis, parametritis, or perimetritis; Hodgkin's disease; and anæmia.

### CLASS III.—UNSUITABLE CASES.

Phthisis with very acute symptoms or tendency to diarrhœa, or repeated pleurisy, or involved larynx, or active disease of both lungs; advanced emphysema, with weak dilated right side of the heart; fatty heart; angina pectoris; hypertrophy and dilatation of the left side of the heart; aortic regurgitation and aneurysm; advanced endocarditis; dysentery or after dysentery; chronic diarrhœa; tuberculous kidney; psoriasis; diabetes, acute; neuralgia (other than the forms of neuralgia included in Class II); advanced locomotor ataxy and nerve scleroses generally; and general paralysis of the insane.

In the above lists it might have been advisable to give an intermediate class between Class II. and Class III., where, although the climate can effect no change, or practically no change, in the disease itself, yet it may delay its further progress, or at least offer a means of happy existence that it would be hard to deny the patient. Thus, for an early case of locomotor ataxy, lateral or disseminated sclerosis, or progressive muscular atrophy, to be able to sit in a comfortable chair on the deck of a *dahabeah*, accompanied by one's friends and a medical adviser to add a sense of security—to be able thus to take in at a glance all the life and interest of the passing banks of the Nile, in a perfect climate; to watch the changes of the sky and the crew at their various occupations—seems to me to offer a new life to a brain yet active enough to appreciate it, or at least to offer the patient a chance of forgetting his troubles, if not of mending them.

I will now add a few remarks on individual cases in the above groups. In cases of phthisis Dr. Sandwith tells me that the opinion used to be held that hæmorrhagic cases should not be sent to Egypt, and, indeed, he would still add a certain reserve on these cases, adding the words "some cases," and I find the same opinion in Dr. Burney Yeo's work on Climate. Personally I am of opinion that, if the case is not excluded by other groups here indicated, the climate of Upper Egypt and the desert is one of the best attainable for these cases. At Luxor in three years, out of all the cases of phthisis living at the hotels and on the river that I have seen, hæmorrhage has only occurred twice, and both of these cases would have been inadmissible, being cases of acute phthisis. I have seen five medical men wintering in Egypt for this very condition, all doing well, and still living and active. With regard to asthma, some cases do better than others, but the major part are free from attacks, or nearly so. The benefit in cases of chronic bronchitis and cases of catarrh is sufficiently well known. I should like to draw special attention to the class of cases "mental strain and breakdown," for the importance of the climate is very marked in all these cases, and in the special cases which are associated with the pathology indicated (and where the fibroid kidney and atheroma cannot with certainty be proved the condition of the pulse and vessels and other well-known signs do not leave much doubt of their presence) the "overstrain" is removed, and business

[1] "Erethic" constitutions subject to pyrexia, rapid pulse, irritability of mucous membrane, capricious appetite, and asthenia out of proportion to the irritation or injury inflicted.

and the markets and "the things which go up and down in the City" are all forgotten in watching the panorama of Cairo life, lunching in the Valley of the Tombs of the Kings, or shooting the cataract. I think it is important to consider these cases in association with the subdivision "hemiplegia and paresis," for, given the same etiology, we are only one step further in the case; and it is the great benefit the climate confers on the etiological conditions which have induced this accident that must be noted—the gout diminished, the kidneys relieved by the skin, any slight bronchitis removed by the purity and dryness of the air, a purer blood current supplied to every organ, abolishing the headache and clearing the brain, worry and strain removed—all combining to make the patient feel "ten years younger" and to delay the next, or final, disaster perhaps indefinitely. That the climate cannot mend the ruptured nerve track and lift the arm again seems to me no argument why these cases should not be allowed the benefit of this climate. I have found it stated more than once that a patient with a tendency to apoplexy "cannot go to Egypt," but I believe there are strong arguments why this class at least should be sent. I am sorry that I cannot at present produce evidence as to the arterial tension and volume of blood, for I am inclined to the opinion that both may be lower in the European after his recent arrival in Egypt, as it would perhaps bear on the cases just considered and might place a slight reservation on the question of aneurysm being unsuited, and perhaps add a difficulty to the cases of aortic regurgitation, thereby diminishing the advantages these latter cases might expect from increased skin action and improvement of the functions of the kidney. The advantages of the climate in cases of insomnia are to be noted, but if this be dependent on heart disease it will be only partially benefited—or perhaps not at all if the patient, ignorant of the heart trouble, spends his days in over-fatigue.

As to Bright's disease, albuminuria, rheumatoid arthritis, gout, and acute rheumatism (between the attacks) the results are so well known, the climate being practically unique in these cases—provided they live in the driest districts of Egypt—that it is not necessary to dwell longer here. Although in the opinion of Dr. Peterson of New York there is "no better climate in the world" for neuralgia of rheumatic or malarial origin, this has been placed in Class II., for the reason that, though this opinion may be, and probably is, correct, yet it is not advisable to raise hopes too high. If the patient comes in the early stages of the disease to Egypt, the cause of the disease may be removed, and one would certainly expect an arrest of its progress; but to the patient's mind, ignorant of his future and barely satisfied with a partial reduction in the severity of his present pains, there may be some disappointment if the result is overstated. Cases which do not come within the etiology indicated are not suitable. Some medical men would be inclined to place chronic dyspepsia of both varieties, especially chronic catarrhal, in Class I. The fact is that the word "indigestion" is never or rarely heard up the Nile; it must not be forgotten, however, that Egyptian cooking and some of the main articles of diet are not of the quality to be had at home, especially as regards meat. Cases of hysteria, alcoholism, and hypochondriasis, especially if placed under direct medical supervision, would be benefited. With heart disease perhaps enough evidence to generalise is wanting, but probably aortic regurgitation is the least benefited. Functional disease of the heart is greatly improved, and those cases in which early hypertrophy and dilatation of the right side of the heart are present or to be expected would derive greater benefit than would sufferers from the same trouble on the left side. Those who have been the subjects of malaria, and staying in Egypt, would derive benefit from the climate and should spend their time in desert resorts. Laryngitis and clergyman's sore-throat must be sent to the spot the least dusty and freest from organisms and at the same time the most equable. Children with strumous tendency do very well, and cases of premature senility derive great benefit. The cases of cystitis indicated must have continued medical supervision and must not be allowed to live simply as tourists, regardless of the task to be accomplished. In Class III., "Unsuitable," most of the cases are obviously unfitted. Advanced emphysema with bronchitis and weak dilated heart is in danger everywhere. If the hotels were specially constructed and ventilated to preserve uniform conditions, these patients might avoid the changes of temperature and relative moisture which even in Egypt occasionally induce in sensitive subjects a fresh attack. We must not forget the desirability of excluding those subject to chronic diarrhœa from any cause, or the remains of dysentery, although Dr. Sandwith finds that dysentery that has been cured and sprue (hill diarrhœa) derive benefit, and he would regard Egypt as a convenient resting-place on the homeward journey from the East, in the winter months, for these cases. It is to be hoped that, as time goes on, it may be possible to deal more closely still with the exact pathology of the cases which derive great benefit—and this seems the more desirable as these cases seem to include a great number in which it would be difficult, if not impossible, to obtain the corresponding relief by other methods.

Luxor.

# Clinical Notes:

## MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

### CEREBRAL DEAFNESS.

BY ROBERT T. COOPER, M.A., M.D. T.C.D., &c

THERE is a form of impaired hearing remarkable for the fact that patients can hear the ticking of a watch at long distances, say at arm's length, and yet are unable or imperfectly able to hear the human voice. When a very marked disproportion exists between the two—the watch-hearing and the voice-hearing—I invariably inquire into the mental history of the patient and his family, and without exception in all these somewhat unusual cases I have been enabled to discover an indubitable cerebral history or to foretell cerebral involvement. It is not, of course, uncommon to find a disproportion between the watch-hearing and the voice-hearing among deaf patients, and I do not at all claim that the mere fact of an alteration of the normal ratio between the two is to be considered significant: I only claim attention for this special feature when such disproportion is very great, and when it is the voice-hearing and not the power to hear the watch that is lost. This peculiarity, admittedly, would be by itself a very insecure ground upon which to base a diagnosis, but it is, I maintain, a justifiable one upon which to found a suspicion, as it certainly does warrant fuller inquiry according to my experience. I must leave the prosecution of further research in the hands of those engaged in the study of cerebral disease. Some of the cases in which, in my hands, this peculiarity existed were attended with symptoms of softening of the brain; while epilepsy, melancholia, and general inaptitude for the affairs of life I have found present, and in these cases the ages varied from fourteen to sixty. Deaf patients, without intending to do so, are very liable to deceive the examiner, and it is known that in some instances the sound of a watch will linger on the ear for a moment or two and appear to be heard when it is not; this I quite take account of in the methods adopted in testing the hearing. In spite of precautions there remains sufficient evidence to warrant me in pronouncing this a separate variety of impaired hearing, and in saying that it has in about a dozen cases been apparently indicative of cerebral disease.

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### A CASE OF DISLOCATION OF THE HUMERUS WITHOUT FRACTURE IN A PATIENT NINETY-FOUR YEARS OF AGE.

BY W. LENTON HEATH, M.D. LOND., F.R.C.S. ENG.

ON June 2nd, 1894, a woman ninety-four years of age, rather thin, but well-nourished considering her years, tripped over a rug in her room, falling on her right side and arm. She immediately felt great pain in the shoulder, and was unable to move her arm. I saw her soon after the accident and found that the head of the humerus was dislocated into the axilla; but there were no signs of fracture of the bones. The patient was so much distressed by the shock of her fall and the pain in the arm that I thought it advisable to give her an anæsthetic before attempting to reduce the dislocated

bone, and Mr. Kingston-Barton, who was kind enough to see the case with me, agreed that it would be safe to give her chloroform, which he administered. She took the anæsthetic very well, and under its influence I easily reduced the dislocation by simple extension of the arm. The patient came quickly round from the chloroform and felt no ill effects from it afterwards. The injury to the shoulder was followed by a great deal of extravasation of blood under the skin as far as the elbow, but this disappeared in about a fortnight, and soon the patient began to move the arm, and she can now use it as well as ever. The interest of the case is centred in the great age of the patient, for dislocation of the humerus without a fracture in a nonagenarian I believe to be an accident of very rare occurrence, even allowing for the fact that there may be few who have put the question to a test. The rapid and complete recovery of the patient is also noteworthy. Another point of interest in the case was the calm and easy manner in which the patient took the anæsthetic, and it tends to support the opinion of those who maintain that chloroform, if carefully administered, may be given with perfect safety to some patients of even very advanced years.

Cromwell-road, S.W.

## THE TREATMENT OF SYCOSIS MENTI.

BY M. G. MCELLIGOTT, L.R.C.S.IREL.

SYCOSIS MENTI, whether of the simple or the parasitic variety, I have always found to be quickly amenable to treatment. Ointments are slow and nasty; epilation is tedious and painful. Both forms of treatment, whether used separately or together, will as a rule have succeeded in disgusting the patient by the time he is beginning to derive some benefit from their employment. The following line of treatment I have invariably found to exert most influence in checking the progress of this disease and in totally eradicating it in parts where it has been already established. Having cropped the beard close to the skin, and having had the affected area thoroughly washed with superfatted soap and warm water, I apply a strip of lint well soaked in the acetum of the B.P. to the diseased part. This, having been carefully covered with a large piece of oiled silk or rubber protective, I allow to remain on for twelve hours. On removing the vinegar dressing I substitute for it a similar piece of lint soaked this time in a solution of the perchloride of mercury (1 in 1200) and applied in precisely the same manner and for an identical period. These dressings I repeat every day for four days, at the end of which time I always find that the disease is dying away. Then I decrease the frequency of the applications to one or two a week, and at the end of the third week I find that there is no longer any necessity for further treatment, as the skin is quite sound and the dermatitis has become a thing of the past.

Higher Broughton.

## TWO CASES OF DIPHTHERIA TREATED WITH ANTITOXIN.

BY OLIVER CALLEY MAURICE, M.R.C.S. ENG., L.R.C.P. LOND.

CASE 1.—A very delicate, weakly child, four years and three months old, was first taken ill on Monday, July 23rd, 1894, with what was supposed to be "a bad cold in the head." She was first seen on Friday evening, July 27th. She was very pallid and collapsed. There was an offensive discharge from the nose, and excoriation about the alæ and upper lip; the glands in the neck were swollen. Over both tonsils and the left side of the uvula there was a greenish-yellowish membrane, surrounded by a red, congested, swollen mucous membrane. The child was suffering from an occasional croupy cough, slight hoarseness, and frequent sickness, with ejection of dirty, watery, offensive matter. The pulse was very weak, 120; the respiration 20 and very shallow. The extremities were cold; the temperature was 101° F. Twenty minims of antitoxin were injected into the back. I prescribed a saline iron tonic and brandy. On July 28th the membrane had extended over the soft palate to a certain extent; the child seemed slightly better and not so collapsed. Twenty minims of antitoxin were again injected. The next day the membrane seemed looser, and the child was brighter and better. The injection of antitoxin was repeated. On the following day the membrane had almost entirely disappeared, and the nasal discharge ceased. On the 31st seventeen minims of antitoxin were injected, the throat being still red and swollen. On Aug. 1st the child seemed better, but the pulse was still weak and the sickness worse. Nutrient enemata were administered and retained. On the 2nd she was very collapsed and sick, the extremities being cold. Brandy and other stimulants were administered. In the evening the child sat up suddenly with a sharp cry and died.

CASE 2.—A well-nourished girl aged two years and six months had been ill for one day before being seen on Sept. 20th, 1894. She was pale, with enlarged glands in the neck. The pulse was quick, the temperature 103·2° F., and the respiration very rapid. There was a greyish membrane on both tonsils and the uvula, and the throat was much congested and swollen. Bleeding occurred on touching the membrane. On the next day two cubic centimetres of antitoxin were injected. On the 22nd the membrane had extended over the soft palate, and one cubic centimetre of antitoxin was injected. On the following day the membrane had almost entirely disappeared, and the child seemed to be very well. The temperature was still slightly raised above the normal. On the 24th she was very bright, the throat had cleared, and the temperature was normal. Recovery was subsequently rapid. The child is now very well.

In the first case I think life was prolonged, for the child, from all appearances, would have died that night, though why the improvement was not maintained I cannot say; but the patient had always been a very delicate, weakly girl. In the second case I think there is no doubt that great benefit was derived from the use of antitoxin.

Marlborough.

# A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

## ST. BARTHOLOMEW'S HOSPITAL.

ACUTE GENERAL PERITONITIS; LAPAROTOMY; RECOVERY. STRANGULATED UMBILICAL HERNIA; OPERATION; RECOVERY; REMARKS.

(Under the care of Mr. HOWARD MARSH.)

THE great interest felt by the profession in the causes, varieties, and treatment of the various kinds of peritonitis is shown by the fact that at two of our medical societies peritonitis has formed the subject for discussion during this week. No apology is, therefore, needed for the publication of a case in which, in the opinion of the surgeon, the cause of the peritonitis was a very rare one, and in which recovery was apparently aided by the emptying of the small intestine with the object of preventing further infection of the peritoneum. Krecke has collected 119 cases of laparotomy in general peritonitis, the origin of which was determined in all but 18, of which 9 were successfully treated by laparotomy. The majority of the remaining 101 cases belonged to the category of perforative peritonitis. Of these, 36 followed perforation of the appendix, 12 perforation of typhoid ulcer (with 5 successful cases), and 12 were due to perforation from gangrene and other causes implicating the bowels; of the gangrenous cases none recovered, and of the 8 others only 3 were cured by the operation. Of traumatic cases, 3 of punctured wounds and 1 of gunshot wound recovered, but of contusions only 3 out of 8 cases recovered after laparotomy. The procedure, however, saved 5 out of 13 cases of puerperal peritonitis. A group of cases of peritonitis from other causes gave 3 deaths and 6 recoveries. The total result was 51 recoveries and 68 deaths.[1]

CASE 1. *Acute general peritonitis following enteritis; laparotomy and intestinal evacuation; recovery.*—A young woman aged twenty-two was admitted into St. Bartholomew's Hospital on Feb. 18th, 1894, suffering from, as the history

[1] Sajous: Annual of the Universal Medical Sciences, 1892, vol. iii., C.

seemed to indicate, acute intestinal obstruction. On the evening of the 14th she had been suddenly attacked with severe pain in the abdomen, and was very sick; vomiting and severe pain continued until her admission, when she stated that her bowels had not acted and that she had passed no flatus since the commencement of the illness four days previously. On examination the abdomen was found to be somewhat distended, but not to a very marked degree. Nothing of diagnostic value could be ascertained by palpation. The patient, who had taken nothing but a little milk and soda-water since the 14th, was now very weak and exhausted. Her temperature was 100° F. On opening the abdomen a good deal of turbid serum escaped, and the small intestine, moderately distended and deeply congested, was seen to be covered here and there with large patches of firm, tawny lymph. Besides these evidences of acute general peritonitis nothing could be made out. The small intestine was examined in its whole length, and the fact was established that no mechanical obstruction was present. The small intestine was carefully inspected, and it could be seen through its other coats that the mucous membrane was dark in colour, as if deeply congested. Here and there patches almost black in colour could be seen. The conclusion was therefore formed that the case was primarily one of acute enteritis, upon which acute general peritonitis had supervened. At one spot it was found that during the examination of the bowel the peritoneum, which everywhere seemed to be somewhat softened, had given way. Through this laceration a trocar and cannula were introduced into the bowel, and a large amount of flatus and liquid fæcal material was removed. Owing to the exhausted condition of the patient it was not considered advisable to wash out the intestine. The opening in the gut was now closed by suturing the mucous membrane and then the peritoneum. The peritoneal cavity was then freely irrigated with warm boric lotion—many large flakes of lymph being removed—and sponged dry, and the abdominal wound was closed. Soon after the operation the patient passed flatus, and next day the bowels acted freely; vomiting ceased. The wound was dressed a week later and was found to be practically healed. The sutures were all removed on the eighth day. The patient recovered rather slowly from her exhausted condition. On the 21st, swelling of the left parotid gland occurred. This lasted for a week and then gradually subsided. On the 27th she had a severe attack of diarrhœa, and on the 28th, as there had been three free actions, a starch-and-opium enema was given. The diarrhœa continued, unless checked by medicine, and on March 11th the bowels acted several times unconsciously. On March 19th, after she had for the first time been allowed a little solid food, the patient was sick and her temperature was 103°. From this date to the 27th she was fed entirely by enemata, and had only a teaspoonful of hot water occasionally by the mouth. On the 27th feeding by the mouth was very gradually resumed, and on May 2nd she went to the Swanley Convalescent Hospital.

*Remarks by* Mr. MARSH.—This case seems to be suitable for publication, for it serves very well to illustrate the advances that have recently been made in respect to the pathology and surgery of acute general peritonitis—a subject ably treated by Mr. Treves in his Lettsomian Lectures of this year. There was no evidence to show how the acute enteritis, which apparently was the starting point of the illness, was produced. Not improbably it was due to the irritative action of unsuitable food. But, however brought about, it led, it must be believed, to two events to which the development of acute general peritonitis was directly due. Mr. Treves quotes observations which show—(1) that the bacterium coli commune—a micro-organism which is found in the whole length of the alimentary canal, from the mouth to the anus—is harmless while the intestine is in a normal state, but becomes virulent when the bowel is involved in any process of disease; and (2) that when the bowel is inflamed, or otherwise in an abnormal condition, the bacterium readily passes through its walls into the cavity of the peritoneum. Acting on this membrane it gives rise to acute inflammatory action. That acute peritonitis is frequently due to the agency of the bacterium coli commune—when it has become virulent and has passed through the bowel wall—seems to be clearly established by a large body of trustworthy evidence. Accepting this as the pathology of the group of cases of which the present is an example, it seems easy to understand what kind of treatment affords the best prospect of success. As the cavity of the intestine swarms with virulent micro-organisms, which are constantly making their way through the bowel wall and reaching the peritoneum, it becomes apparent that it is not enough merely to perform laparotomy and wash out the peritoneal cavity. In addition to this it is often necessary to open the intestine and as far as possible to remove the material which it contains and which teems with a virulent micro-organism by which the process of peritoneal inoculation is being constantly repeated. The result, in the instance under notice, of this principle of treatment was very striking. Vomiting immediately ceased, and flatus was passed; distension subsided; the next day a free action of the bowels spontaneously occurred, and the previously extremely grave condition of the patient was forthwith exchanged for one which was marked by no serious symptom of any kind. The case, together with others which have recently been published, shows that the belief that operative interference in acute general peritonitis is of little avail is happily erroneous. It appears safe to anticipate that in the future numerous cases will be saved which in the past would inevitably have ended fatally. The severe diarrhœa which set in more than a week after the operation may be regarded as eliminative. I regret that no bacteriological investigation of the material passed was made. In future cases such a study may probably afford important information as to the period during which the bacterium coli commune retains its virulence. A very important point in operating on such a case as the present—beyond the sparing use of the anæsthetic employed—is that the proceeding should occupy as limited a time as is consistent with the careful performance of its various stages. In this instance the operation was completed in twenty-five minutes.

As in the case of other abdominal herniæ, the result of operation for umbilical hernia has much improved during recent years, this being apparently due to two well-recognised causes: (1) antiseptic precautions during operation, and (2) the shutting off the peritoneal cavity by closure of the neck of the sac. We do not often publish cases of umbilical hernia as isolated cases, but this case is worth a brief record as it illustrates a point which has an important bearing on the surgery of the intestine.

CASE 2. *Umbilical hernia long irreducible; strangulation; great hypertrophy of the muscular coat of the intestine.*—A woman aged forty-five was admitted to hospital on June 15th, 1894, with a large strangulated umbilical hernia. The hernia had existed for fourteen years, and for twelve months had been irreducible. On several occasions the patient had been attacked with vomiting, lasting several days and attended with constipation and distension. The present attack began on June 9th—six days before admission—and obstruction had been complete since the 12th. The abdomen was now distended, and vomiting was feculent. The sac when opened was found to contain a large quantity of omentum and a portion of the colon. The omentum, which was extensively adherent to the sac, was detached and removed. The intestine was also closely adherent at many points to the sac, and was separated with some difficulty and the expenditure of a good deal of time. The sac was removed and the abdominal aperture closed by buried sutures. Within an hour the patient passed several large evacuations, vomiting ceased, and the distension quickly disappeared. The wound was dressed a week later, and was found to be healed. The temperature was normal throughout except on one occasion, when it was 101° F. It seemed, as the operation proceeded, and when the very unfavourable results so often met with in operations for strangulated umbilical hernia attended with feculent vomiting in stout females were remembered, that the patient had but a very small chance of recovery. Yet she got well without a bad symptom.

*Remarks by* Mr. MARSH.—The patient's recovery, I think, was mainly due to the fact that the muscular wall of the colon had, in consequence of repeated obstruction, become greatly hypertrophied. In this condition it was very vascular and strong, and although it had been subjected to a week's partial and three days' complete strangulation it was so little injured that it was able at once, when returned into the abdomen, to resume its peristaltic action and transmit its contents. In an inguinal colotomy for cancerous stricture of the rectum recently met with, the colon had undergone so much hypertrophy that it had acquired almost the appearance of the urinary bladder. This element of hypertrophy, in whatever degree it is developed, is an evident advantage, not only as conferring an increased power of resistance to

injury in the intestine, but also in regard to operative treatment. It facilitates the introduction of sutures, and it promotes vigorous healing and the speedy resumption of peristaltic action.

## ROYAL INFIRMARY, NEWCASTLE-UPON-TYNE.

### DIABETIC COMA TREATED BY SALINE INFUSION; TEMPORARY IMPROVEMENT; DEATH.

(Under the care of Dr. T. OLIVER.)

THE importance of a correct understanding of the cause of diabetic coma and the best way in which it should be treated when met with in practice is undeniable. This is explained by the fact that, according to Frerichs, 153 of 250 cases of this disease die in this way from coma. The use of saline injections has been frequently tried in diabetic coma, and, although the improvement in no case with which we are acquainted has proved of more than temporary duration, the change has been for that period little less than marvellous. The patient in this case, when spoken to after the injection, "replied intelligibly"; in other instances the return to consciousness has been more complete, a fact which might sometimes prove of value from a medico-legal standpoint. In one case when Dr. J. Hesse[1] used carbonate of soda as an infusion and as a subcutaneous injection the man passed into a quiet sleep, and awoke in a few hours with a clear head. In Dr. Dickinson's case[2] the patient (a girl) gradually regained consciousness, and next day talked and ate naturally. A large amount of saline solution was used. Dr. Chadbourne's case[3] recovered consciousness after the infusion of thirty fluid ounces of a 5 per cent. solution of bicarbonate of soda. Dr. Hampeln[4] obtained favourable results from infusion of salt water. Dr. Koettnitz[5] after infusion obtained an immediate result; the patient made several movements and was able to reply to questions, but without opening her eyes. The improvement lasted only from ten to fifteen minutes. In none of these instances was the repetition of the injection followed by the same improvement. The amount of injection used has varied greatly. Dr. Dickinson used seventeen pints and a half at the second injection in the case alluded to; but, as he remarks, "The postponement of the expected benefit led to its being carried beyond the region of therapeutics into that of pathology." For the notes of the case we are indebted to Dr. James Hindhaugh, house physician.

A man forty-five years of age was admitted into the Royal Infirmary, Newcastle-upon-Tyne, at 5.45 P.M. in a condition of insensibility. The note which accompanied him stated that his pulse was 96 per minute, temperature 98° F., and that he had been suffering from intestinal obstruction of seven days' duration, attended by fæcal vomiting for the last four days. When seen by Dr. Hindhaugh he was at once recognised as a patient who had lately been attending Dr. Oliver's out-patient department for diabetes. He was comatose, the pulse was 66, and the pupils were dilated, but capable of reacting to light. He was roused with difficulty. The skin was dry and harsh, the body much emaciated, and his breath had a sweet odour. His friends stated that no urine had been passed for twenty-four hours, and very little for a few days previously. A rubber catheter was passed into the bladder, but only a few drops of urine were withdrawn, which gave, with Fehling's solution, the characteristic reaction of sugar. The patient was in this condition when seen by Dr. Oliver. Hot bottles were applied to the surface and a small quantity of stimulant administered, but as the coma became more profound saline infusion was resorted to. Fourteen ounces of the saline solution recommended for such cases were slowly forced into the right median basilic vein. Half an hour later his pulse was much stronger, and when spoken to he replied intelligibly. The improvement was only for a short time maintained, for he gradually relapsed and died, without regaining consciousness, seven hours after the infusion.

[1] Sajous: Annual of the Universal Medical Sciences, 1889, vol. i., L. 42.
[2] THE LANCET, March 8th, 1890.
[3] Sajous: Annual of the Universal Medical Sciences, 1891, vol. i., G. 83.
[4] Ibid., 1892, vol. i., A. 131.
[5] Ibid., 1893, vol. i., G. 33.

# Medical Societies.

## ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

### *The Surgical Treatment of Diffuse Septic Peritonitis.*

THE first ordinary meeting of this society for the present session was held on Oct. 23rd, Mr. WARRINGTON HAWARD, Vice-President, being in the chair.

Mr. C. B LOCKWOOD read a paper on the Surgical Treatment of Diffuse Septic Peritonitis, and related some successful cases. The communication began with the remark that the term "diffuse septic peritonitis" probably included several kinds of disease. In the variety referred to by him the inflammation was acute and had no definite limits; the serous membrane was smeared with lymph, which was either transparent and oil-like or collected in ashen-grey fibrinous flakes. Adhesions were absent, or very slight; the peritoneal cavity contained thin purulent fluid, which often had a fæcal odour, or it might be full of gas; the intestines were distended and paralysed, and the disease ran a rapid and fatal course. Although cases which came within this definition were numerous, surgical literature contained few records of recovery after operative intervention; authorities were quoted to support this statement, and it was said that there had hitherto been no successful case in St. Bartholomew's or the Great Northern Central Hospitals. It was proposed to include in an appendix the successful cases which others had recorded. Hitherto, Mr. Lockwood had operated upon cases of diffuse septic peritonitis more because he was afraid of overlooking a mechanical obstruction than in the hope of curing the peritonitis. A case was described to illustrate the importance of intestinal paralysis and distension in causing the fatal ending. Stress was also laid upon exhaustion and collapse as factors. In his successful cases a systematic attempt was made to meet exhaustion and collapse by stimulating the patient temporarily before the operation with strychnine and brandy; by the systematic application of warmth during the operation, and by rapid and methodical operating; and by warmth, stimulants, and nutrient enemata afterwards. The organisation of the operation was described, and the treatment of the distended intestines alluded to. To empty them, the gas was drawn from each coil by puncturing it with a fine trocar and cannula; the fæces were let out by an incision, which was afterwards closed. The abdomen was afterwards irrigated, and closed after the insertion of a drain. Two cases of diffuse septic peritonitis were described in which the treatment was successful. In the first there was a perforation of the ileum. The peritonitis was of not less than forty-eight hours' standing. In the second case the peritonitis had probably been in progress fifty-two hours. The abdomen was full of free gas, with the usual lymph and purulent fluid. The cause was thought to have been a septic inflammation of the left Fallopian tube. The patient was now convalescent, the operation having been performed more than five weeks ago. A third case was described, in which the peritonitis was diffuse but different in type. In this the recovery was mainly attributed to an accidental fæcal fistula, which discharged, and prevented distension and paralysis after the laparotomy.

Mr. HULKE thought that this paper was of very considerable value as regarded the surgical treatment of this class of cases, which previously were looked upon as of the most hopeless kind. The novelty was in the methodical evacuation of the intestines by the combined use of trocar and incision. In his own experience and in that of others puncture had not always been carried out with impunity, as in some cases the intestinal walls were so soft that the puncture continued to leak, and when an endeavour was made to close it by suture the opening was only made larger, leaving a ragged aperture of some size. No one would hesitate to enlarge by incision a perforation which was already found to exist, and by this means promote the rapid evacuation of the intestinal contents.

Mr. KNOWSLEY THORNTON said that the cases related were most encouraging, and furnished hope for the future. Detail was the essence of good surgery, and in this respect the paper was a most valuable one; he could have even wished that Mr. Lockwood had gone still more minutely into detail and had shown them the kind of trocar he used and had mentioned the

dose of strychnine he had subcutaneously injected. For many years he had been accustomed to puncture by trocar and to make incisions into distended gut, but he had not carried out these measures by a detailed method. Looking back on his previous work, he felt that in none of his cases had he been sufficiently careful to protect the patient from chill, shock, and prolonged exposure. The combination of puncture with incision and the protection of the patient from shock were the essential features of the treatment recommended. He had long recognised that distension of the intestine was the most dangerous feature; as was also the septic material spread over the surface of the gut; the latter rendered thorough irrigation absolutely necessary. If free evacuation of the intestine by incision followed the puncture of the gut, the collapse of the intestine which followed such evacuation would render the puncture less dangerous, even though the intestinal wall were softened by inflammation.

Mr. HARRISON CRIPPS said that he would rather have called such cases as had been related "simple diffuse peritonitis," and he proceeded to give some illustrations of what he meant by this term. He divided diffuse peritonitis into two great classes—first, those which he termed mechanical, such as resulted from a twisted ovarian pedicle; and, secondly, diffuse septic peritonitis, which might follow after childbirth or erysipelas, or was occasionally the after-result of operation. In the latter class of case he did not believe that any good could be done by operation, for the cause of death was the actual poison which had been absorbed into the system, and which had thus got beyond the reach of surgery. He congratulated Mr. Lockwood upon his paper and upon his success with cases which had been the bane of abdominal surgery. He thought that by showing how successfully to deal with them he was conferring one of the greatest boons upon the profession and upon humanity.

Mr. ALBAN DORAN went even further than Mr. Cripps and divided cases of diffuse peritonitis into three classes—the first deadly, the second coming on in about three days and being those with which the paper was concerned, and the third the truly pyæmic cases, which came on in about the third week and might some day be cured by surgical interference. In this third class the excretory viscera were almost always affected with pyæmic deposits, and he would like to ask Mr. Lockwood if he thought it justifiable to perform abdominal section in such cases or whether they should be considered hopeless.

Dr. NORMAN MOORE did not agree that the presence of plastic lymph excluded septic peritonitis. Some of the collapse present might be due to the size of the opening in the gut, and he quoted the case of a man whom he saw within two hours of the bursting of a gastric ulcer, death occurring seven hours later. At the necropsy there were very few signs of peritonitis. The operative measures recommended might be of use in the desperate cases of peritonitis which very rarely occurred in the course of acute rheumatism, especially if unaccompanied by ulcerative endocarditis.

Mr. MARMADUKE SHEILD had punctured the gut through the abdominal wall on many occasions for chronic intestinal obstruction, but such punctures frequently leaked and had set up peritonitis. It was of immense importance to use a very fine trocar and cannula, which should not be larger than the calibre of a sewing needle and which should be passed obliquely through the muscular coat so as to produce a valve-like opening and thus render leakage almost impossible. He suggested that the peritoneum should be treated, like other foul septic cavities, by continuous irrigation or by multiple flushings.

Mr. HULKE added that he was under the impression that Billroth fifteen years ago advocated continuous drainage in these cases.

Mr. BARKER had found by experience that a very convenient method of flushing the abdomen was to use a can with three taps to which tubes of large calibre were attached, and thus the abdomen could be flushed from several points at the same time, the fluid flowing out of the original incision. He thought that a better temperature for the fluid would be 105° F. He was in favour of free incisions into the intestine rather than punctures on account of the immediate relief to the distended intestine, and that it was practically almost as easy to stitch up an incision three-quarters of an inch in length as one only a quarter of an inch long. He entirely agreed with Mr. Lockwood that the best way to secure patients from chill was to wrap them up in cotton wool from head to foot.

Mr. A. BOWLBY dealt with the best means of washing out the peritoneal cavity; an incision below the umbilicus would not necessarily empty the peritoneal sac, for in one case, after incising and flushing out below, he found a large quantity of gas as well as fluid remaining in the peritoneal sac above. He considered that when the peritonitis was due to duodenal or gastric mischief two incisions, one above and one below the umbilicus, were necessary to ensure complete flushing.

Mr. LOCKWOOD, in reply, said that if odour was a test of septicity then his cases possessed that attribute in a remarkable degree. He agreed that there were almost as many different kinds of peritonitis as there were organisms that could get inside the peritoneal cavity. He remarked that all recent researches on this subject had been done by cultures, but this was a fallacious method, because some of the organisms might not grow in the cultivating media used. He had been in the habit of using a trocar of the size of a large Southey's tube—that is, having a diameter of one and a half to two millimetres. He agreed that the bayonet puncture was the best. He flushed out the peritoneum in a methodical manner with a large single tube. He agreed also that in cases of perforation high up a second incision lower down should be made for the purpose of flushing. The object of his paper was not to bring forward anything new, but to advocate the methodical use of known methods.

## MEDICAL SOCIETY OF LONDON.

*Laparotomy for Perforating Ulcer of the Duodenum.—Additional Cases of Perforating Ulcer of the Duodenum.*

AN ordinary meeting of this society was held on Oct. 22nd, the President, Sir WILLIAM DALBY, being in the chair.

Mr. MARMADUKE SHEILD read a paper on Ulcerations of the Duodenum, with special reference to the Latent Perforating Ulcer of that part of the intestinal canal. He related two cases where he had performed laparotomy for acute abdominal symptoms in young men suffering from this affection. The patients were respectively under the care of Dr. Thomas Green and Dr. Whipham. Other cases were referred to, especially those recorded by Mr. Lockwood in last year's Transactions of the Medical Society of London. The general literature of ulcerations of the duodenum was extensively reviewed, and Mr. Sheild argued that the ulceration of the duodenum after burns was due to septic infarction of the vessels of the duodenum, the gastric juice then acting upon the parts cut off from vascular supply. Duodenal ulcer after burns was rare in the present day, on account of the care with which antiseptics and cleanliness were employed. The predisposing causes of ulceration of the duodenum, especially chronic albuminuria, tuberculosis, and malignant disease, were carefully reviewed. As regarded latent ulcer of the duodenum, it was shown to be more common in men than in women, and generally to be situated on the anterior surface of the first part of the duodenum. No explanation could be offered for this curious fact beyond the possibility that when ulcers occurred in the back of the duodenum they might heal; but when they occurred on the unsupported front aspect of the gut they usually perforated. Mr. Arthur Latham added an important mass of information to this paper by reviewing in conjunction with Mr. Sheild the cases of perforation of the intestine at St. George's Hospital for the last thirty-one years. In 8192 post-mortem examinations there were 116 cases of death from perforation of the intestines, and 12 of these were due to perforation of the duodenum. Ten of these occurred in males and 2 only in females. In 9 of the 12 cases the ulcer was on the anterior surface of the duodenum. Ulcerations of the duodenum which had not perforated were present as follows: those with slight ulceration or congestion, 7 cases; associated with renal disease, 6 cases; tuberculosis, 2 cases; malignant ulceration, 1 case; in association with scirrhus of the pancreas, 2 cases; and 5 cases without any very obvious cause. The symptoms and diagnosis were next considered, and cases quoted to show the similarity of the affection to lead colic and intestinal obstruction, while the sudden collapse and death which had been found in some of the cases had led to the suspicion of death from poison. Great stress was laid upon the symptoms being primarily epigastric, and on the fluid and flatus in the peritoneal cavity being devoid of fæcal odour. The reaction to litmus should be acid, but this was not always

the case, since the peritoneal exudation would neutralise the contents of the duodenum or stomach. The situation of an exploratory incision was finally considered, and various methods of finding a perforation were mentioned and criticised. Stress was laid upon a method used by Mr. Sheild in abdominal surgery of passing stout silk loops through the abdominal opening on either side and holding the edges asunder. This gave freer access to the cavity of the abdomen than any other method, while traction upon the loops would greatly facilitate the return of distended intestine. The following conclusions were arrived at:—1. That perforating ulcer of the duodenum was a rare affection, and far more common in young adult males than females. 2. That in a considerable number of cases the symptoms were primarily epigastric or referred to the right hypochondrium, or there was a previous history of epigastric troubles. 3. That in perforative peritonitis occurring suddenly in a male, if the symptoms were not very typical of implication of the vermiform appendix, the surgeon should turn his attention to the duodenum, where the lesion would most generally be found. The absence of fæcal gas or odour in the abdominal contents pointed to implication of the duodenum or stomach. Acidity of abdominal contents pointed to the same conclusion. A small exploratory incision below the umbilicus would clear up the nature of the abdominal contents. 4. The success of the future lay in cleansing the peritoneum by repeated hot-water flushings and drainage of the pelvic cul-de-sac.

Mr. C. B. LOCKWOOD contributed an account of some Additional Cases of Perforating Ulcer of the Duodenum. His communication is published in full in another part of our present issue. Mr. Lockwood afterwards remarked that he had recently seen a case of perforating ulcer of the stomach dealt with by laparotomy, and the fluid in that case was found to be neutral. All the cases of perforative ulcer which he had seen were small, with sharply cut edges, and all could have been closed by suture through a median incision above the umbilicus.

Dr. HECTOR MACKENZIE said that two cases came under his notice some time ago. The first was sent to St. Thomas's Hospital for intestinal obstruction, and perforative peritonitis of the appendix was diagnosed. Laparotomy was performed and a general diffuse peritonitis discovered, but there was no affection of the vermiform appendix. As the patient became extremely collapsed the abdomen was closed without further search. At the necropsy a perforating ulcer of the duodenum was discovered, though during life there was neither localising pain in the right hypochondrium nor other symptom suggestive of duodenal ulcer. The second case was one of peritonitis and the patient lived nine days after the onset of acute symptoms. There was nothing in this case also to suggest ulcer of the stomach or duodenum, but post mortem an ulcer was found in the first part of the duodenum on its anterior surface. In none of the cases of perforative ulcer of the duodenum at St. Thomas's Hospital could a diagnosis be made. Symptoms of peritonitis of severe onset might suggest a perforation of the duodenum; but these symptoms might also be due to perforation of the stomach or of the vermiform appendix. If one relied too much on the region in which pain was first felt one might easily fall into the other error and mistake what was really a perforation of the vermiform appendix for one of the stomach or duodenum. In cases of gastric ulcer guiding symptoms might be present beforehand, but in duodenal ulcer the symptoms were usually absent.

Dr. ROUTH said that in cases of abdominal inflammation electricity might be of use in localising the area first affected; it would be found that intense pain would be caused by passing the positive electrode over the spot opposite the perforation. Apostoli had succeeded in this way in detecting trouble connected with the stomach and with the ovary.

Mr. HOWARD BARRETT referred to a case which occurred in his practice in the early part of the summer of this year. A man aged thirty-five, who was the subject of dyspepsia, was suddenly seized at the theatre with extreme agony and collapse accompanied by vomiting. Abdominal section was performed later by Mr. Godlee, and fluid of fæcal odour was evacuated from the peritoneum. The abdominal cavity was drained and the patient recovered. It was the opinion of those who saw the patient that the case was one of duodenal ulcer. Before the acute attack he had been frequently troubled with right hypochondriacal pain.

Mr. SHEILD, in reply, said that in his two cases the fluid found in the abdominal cavity was sweet, and he thought that if early laparotomy were resorted to in these cases the fluid evacuated would generally be found to be sweet and distinctly different from the fluid present in the peritoneal sac when the cæcum or lower bowel was perforated. The fluid might be acid at first, but it was rapidly neutralised in the peritoneum. He agreed that when exploratory laparotomy was performed in these cases a second separate incision should be made above rather than prolong the original laparotomy wound upwards. The collapse in these cases was very striking, and was, he thought, significant of perforation of ulcer high up. He believed that the method suggested by Dr. Routh might be useful in the case of a tender ovary, but it could be of little value in instances like those under discussion, where the abdomen was often distended with intestinal gases and the patient too collapsed to describe where he felt pain. He had seen cases of subphrenic abscess in which the fluid was offensive but not feculent. Where the communication of these abscesses with the stomach was direct the patients seldom recovered, and it was therefore better to perform laparotomy immediately than to wait for the chance of a subphrenic abscess forming. In these cases it was necessary to carry out an elaborate purification of the peritoneal cavity.

## OPHTHALMOLOGICAL SOCIETY.

*Filaria Loa.—Tuberculous Keratitis.—Equatorial Rupture of the Choroid.—Cataract.*

THE first ordinary meeting of this society for the present session was held on Thursday, Oct. 18th, the President, Dr. D. Argyll Robertson, being in the chair.

Dr. ARGYLL ROBERTSON read an account of a case of Filaria Loa. The patient, a woman aged thirty-two years, had spent eight years at Old Calabar, with the exception of two visits to England after attacks of intermittent fever. She returned to England in January, 1894, after being laid up with dysentery and remittent fever, and the worm was first noticed in the February following. It affected both eyes, but chiefly the left, being felt in the lids and conjunctiva. The worm was most lively when the patient was sitting in a warm room, especially before the fire, disappearing to deeper parts in a colder atmosphere. In July and August, while the patient was much in the open air, the worm was not felt, and was thought to have disappeared, one having been passed per rectum. When moving about the creature produced irritation which prevented work or reading but set up no severe inflammation. When examined in June no trace of the worm could be found, but on Sept. 12th it was felt moving. The eye was covered with a warm cloth to retain the creature *in situ*, and on examination it was observed to be passing in a wriggling, tortuous manner under the conjunctiva, about 5 mm. from the cornea, and causing some lacrymation and injection. A finger was pressed upon the globe to retain it during cocaine application, after which a fold of conjunctiva was raised and snipped with scissors, one end of the worm was seized with iris forceps, and the creature withdrawn. It was like a piece of fishing-gut: round, transparent, and colourless, about 25 mm. in length and ½ mm. in breadth, blunt at one extremity and tapering at the other. Twisted around it was noticed a finer coil, which proved to be the alimentary canal protruded. The worm became still when immersed in boracic acid, and was subsequently mounted in glycerine jelly. It was a male and was exhibited under the microscope. Sketches were also shown. The creature was well known to the natives of Old Calabar, and was believed to gain access to the eyes while bathing. They were accustomed to use salt-and-water to "scare them away." Mosquitoes were plentiful in the district but the dracunculus medinensis was unknown. He quoted other cases which had occurred in the same region. A woman who had lived in Old Calabar from 1860 to 1863 subsequently suffered from the worms, which were removed in 1875 and 1876. Trouble was only experienced in warm weather and ceased entirely after their removal. Dr. Thompstone of Opobo had described two cases in natives, the coiled-up worm at the inner canthus resembling dachryocystitis. In all about twenty-six cases had been reported, of which the earliest were by M. Bajon, a French surgeon, in 1768 and 1771, on the occasion of his visit to Cayenne. Subsequently M. Morgan described a case, and in 1777 M. Guyon did so, others being added by M. Clobe and

M. Sigot in 1832 and 1833. Among English writers Dr. Laney had described two cases in Krumen in 1841, and was followed by Dr. Mitchell of Trinidad in 1845, and later by Drs. Morton and Davidson. Dr. Argyll Robertson suggested that there was probably a close similarity between this creature and the filaria diurna, if they were not actually identical. He said the worm obtained access to the eye either by direct penetration of the conjunctiva or by being swallowed, and that there was in all probability an intermediate insect host concerned in the course of its development. Its distribution was apparently limited to the West Coast of Africa.

Dr. PATRICK MANSON said that amongst a large number of cases of filaria sanguinis he had met with one in which the embryos were identical in appearance, but appeared in the daytime instead of at night. This he had named "filaria diurna." The sketches of the embryos in filaria loa corresponded with these. He thought the embryos obtained entrance to the blood in the same manner as those of filaria sanguinis, and that a local blood-sucking fly was the intermediate host. The male filaria loa measured 17 mm. and the female 70 mm. Protuberances made up of parts of the alimentary canal were often noted, and four or five of the parasites occupied the blood at one time. They were extremely sensitive to cold. The time during which the parent worms of filaria sanguinis existed in the same host extended to fifteen or twenty years. Dr. Manson enumerated the worms infesting the blood as the guinea-worm, filaria volubilis, filaria fustans, and filaria diurna (loa). He quoted a book published in Frankfort in 1598, which illustrated the mode of removal of the guinea-worm.

Dr. DRAKE-BROCKMAN described a case of Filaria Oculi Humani which occurred in Madras in 1891 in a woman. The eye became inflamed and an object was observed in the anterior chamber which proved to be a worm about three-quarters of an inch long. Tension was increased, and there was keratitis punctata. Paracentesis was performed, but two days later the lens became opaque and was subsequently removed. Two cases had been described as filaria papillosa by Mr. C. McNamara in the *Annals of Medical Science*.

The following cases and card specimens were shown:—

Mr. HARTRIDGE and Mr. GRIFFITH: Case of Tuberculous Keratitis.

Mr. KENNETH CAMPBELL: Equatorial Rupture of the Choroid.

Mr. MARCUS GUNN: Lamellar Cataract of Unusual Form.

Dr. R. MCINTOSH: (1) a case of Lenticonus Posterior; and (2) a case of Associated Movements of the Left Levator Palpebræ and Internal Pterygoid Muscles.

## HARVEIAN SOCIETY OF LONDON.

*Spina Bifida.—Congenital Heart Disease.—Reduplicated First Sound of the Heart with a Systolic Bruit.—Early Occurrence of Lateral Sclerosis after Syphilis.—Infantile Spastic Paraplegia.—Perforation and Cicatrisation of Palate from Congenital Syphilis.—Five Cases of Calculi.*

A MEETING of this society was held on Oct. 18th, at 8.30 P.M., the President, Mr. GEORGE EASTES, in the chair.

The PRESIDENT made a few introductory remarks, and welcomed the members and visitors to the first meeting of the sixty-fourth session. The evening was devoted to the exhibition and discussion of clinical cases.

Dr. BOXALL showed an infant four days old suffering from Spina Bifida. The child was born by a breech presentation about fourteen days before term. The deformity was attributed by the grandmother to a fright experienced by the mother witnessing her sister suffering from a fit. Dr. Boxall pointed out that in this case, at any rate, a maternal impression received only one month before delivery could not be accepted as an explanation of the deformity, and, as far as he was aware, such impressions were always fallacious. He regretted that he was not in a position to offer information as to the presence of spina bifida occulta in either parent.—Mr. JACOBSON thought that nerves were present in the sac; the skin over the sac was thin and moist.

Dr. H. A. CALEY brought forward a case of Congenital Heart Disease in a girl aged eleven years. She had suffered all her life from cyanosis and dyspnœa. The presence of pulmonary stenosis was manifest from the fact that—(1) a loud systolic bruit was present, which attained its maximum intensity over the position of the pulmonary orifice, and was conducted upwards to the left; (2) there was evidence of hypertrophy of the right ventricle; and (3) modification of the pulmonic second sound was noted. The association of incomplete inter-ventricular septum with the pulmonary stenosis was suggested by the sudden and profound variations in the intensity of the cyanosis, from alterations in the peripheral circulation, a condition which would readily be explained by variations in intra-ventricular pressure in association with incomplete inter-ventricular septum. Confirmation as to the latter point was obtained by the presence of a distinct systolic bruit limited to the region of the septum. The case was, therefore, regarded as one of combined pulmonary stenosis and incomplete inter-ventricular septum.—Dr. SOLOMON SMITH drew attention to the great hypertrophy of the right ventricle which would be necessary to enable it to overcome the pressure in the left ventricle and in the systemic arteries. Such right-sided hypertrophy was usually accompanied by a considerable amount of dilatation, involving incompetence of the tricuspid valve, and in the absence of evidence of such a state of affairs he hesitated to accept the hypothesis that during systole the blood in this case passed from right to left through the inter-ventricular opening. There was, however, no difficulty in believing that during the flaccidity of diastole the left ventricle was partly filled by dark blood flowing through the opening from the tense right auricle.

Dr. CHARLES W. CHAPMAN exhibited a case of Reduplicated First Sound of the Heart with a Systolic Bruit, both heard in the mitral area; also a thrill with a rasping systolic bruit in the aortic area. The patient was a young woman aged nineteen years, who had had scarlet fever when a child. There was no history of rheumatic fever or pain. She complained of dyspnœa on exertion, pain under the left breast, and of œdema of the ankles on standing. The patient had much improved under rest in bed and the administration of iron.

Dr. SIDNEY PHILLIPS showed a man aged twenty-four years who, when in the army eighteen months ago, contracted syphilis. Ten months after this he began to suffer from symptoms of Lateral Sclerosis, resulting in his being invalided from the army. He showed the characteristic symptoms—rigidity, increased reflexes, ankle-clonus, and peculiar gait, without any sensory symptoms, wasting of muscles, or loss of faradaic reaction. Dr. Phillips remarked that the interest in the case consisted especially in its rapid supervention on primary syphilis.

Dr. PHILLIPS also exhibited a child eighteen months old with symptoms of Infantile Spastic Paraplegia. The legs only were affected, but there was some athetosis in the hands. In answer to Dr. Solomon Smith, he said that there was no optic neuritis.

Dr. SCANES SPICER showed a case of Perforation and Cicatrisation of Palate from Congenital Syphilis in a girl aged ten years and a half. The throat had been in that state for two years. He called attention to the unusually early age at which she presented these advanced palatal lesions, and the comparative rarity with which they resulted from congenital and hereditary disease, and he thought that the condition arose from deep, painless, and unnoticed ulceration rather than from the breaking down of a gumma.

Mr. JACOBSON exhibited five cases of Calculi removed during the last few months. One, a vesical calculus weighing four ounces and a half, had been removed from a girl aged eighteen years. The projecting ends of a hairpin showed its origin. The patient made a good but slow recovery after the supra-pubic operation. In this case the ends of the pin, just projecting from the stone, were embedded in the mucous membrane, and perforation must have soon occurred. There was a history of six years' symptoms. Mr. Jacobson alluded to an inquest in the south of London, in which strong remarks were reported to have been made about the want of diagnosis in a very similar case, where death had apparently resulted from ulceration of the bladder. Such cases showed the need of early examination of the bladder, under an anæsthetic if needful. The other four cases were of renal calculi removed by nephrolithotomy. Three patients made good recoveries, but one died from hæmorrhage, which came on about two, and again about eight, hours after the operation. Transfusion was resorted to, but the patient sank a few hours later. At the necropsy a contracted mitral valve was found. Mr. Jacobson related two other cases in which he had operated when this

condition had been diagnosed; here the anæsthetics, ether and the A.C.E. mixture, had caused great anxiety.—Dr. CHAPMAN remarked that the well-known tendency to pulmonary hæmorrhage in cases of mitral stenosis might in a measure account for the fatal bleeding.

## LIVERPOOL MEDICAL INSTITUTION.

*Exhibition of Specimens and Cases.—Gonorrhœa and Stricture.—Facts, Legal and Medico-Legal, in the Administration of Arsenic.*

AN ordinary meeting of this society was held on Oct. 18th, Mr. CHAUNCY PUZEY, President, being in the chair.

Mr. PAUL showed two card specimens: (1) Duct Cancer of the Breast; and (2) Large Adeno-sarcoma of Breast.—Mr. THELWALL THOMAS showed a woman thirty years of age from whom he had removed a Cystic Swelling in the Isthmus and Lateral Lobe of the Thyroid Gland. A median incision was made and the cyst shelled out quite easily; it contained a brownish fluid, in which large flakes of cholesterin floated.—Mr. PAUL said that it should be the rule to remove by operation all thyroid tumours; when in their early stage they shelled out most readily.—Mr. THELWALL THOMAS also read notes of a case of a man forty-six years of age who had suffered from Gonorrhœa and Stricture twenty years ago. Ten years later internal urethrotomy was performed, but the stricture had returned, and he had great difficulty in micturition. Syme's staff sounded calculi behind the stricture. On incising the perineum a dilated membranous urethra was opened, which contained twenty-five calculi, weighing 2 oz. 50 gr. The stricture was divided and the bladder drained, but the patient succumbed to uncontrollable vomiting and diarrhœa on the fourteenth day. On post-mortem examination both kidneys were found to be suppurative, and an abscess surrounded the right one.—Mr. RAWDON suggested that in these advanced cases of chronic dysuria a safety-valve would be afforded if, as a preliminary measure, the bladder were drained above the pubes for a few days or even weeks, the operative measures for permanent cure being adopted later.—Mr. MURRAY exhibited three children who had been Trephined for Cerebral Abscess. The first case was due to traumatism in the upper part of the right Rolandic area. Three years and a half had elapsed since the operation, and the child was in good health and showed no signs of mental impairment. In the second case an operation was performed eleven months ago for a large abscess in the temporo-sphenoidal lobe secondary to middle-ear disease. The recovery was complete. In the third case an operation was performed four months ago for an abscess of the right lateral lobe of the cerebellum and an extradural abscess over the sigmoid sinus, also due to middle-ear disease; the result was entirely satisfactory.—Mr. RUSHTON PARKER pointed out how unnecessary it was, at least in children, to replant the trephined disc of bone; this had not been done in any of Mr. Murray's cases, and yet the openings were all firmly closed by bony growth.—Mr. HUGH E. JONES was present when Mr. Murray operated on the third case; the cerebellum was reached by snipping away the bone from the mastoid opening. This was much preferable to making a separate trephine hole over the cerebellum, a method which was often attended by very troublesome hæmorrhage.—Mr. BANKS exhibited a Vermiform Appendix which he had removed on the previous day. A young man twenty-eight years of age had complained of more or less abdominal pain for five years. More recently the pain was located in the region of the cæcum. Mr. Paul examined the case with Mr. Banks, and neither could detect anything wrong by palpation. The patient, however, urgently requested that an operation should be performed for his relief. The appendix vermiformis on section was found to be kinked and to contain hard fæcal concretion.—Dr. CARTER then read a paper entitled "Facts, Legal and Medico-Legal, in the Administration of Arsenic." He referred to an important trial which took place in Liverpool some five years ago. The medical experts for the defence had positively stated that the medicinal administration of arsenic diminished the urinary secretion, and also that arsenic in medicinal doses could readily be detected in the urine if it were boiled for a few minutes with a little pure hydrochloric acid and a slip of copper foil introduced into it. Dr. Carter was much struck at the time by these statements, which were so contrary to his own experience and to the statements made by the leading authorities. Since the trial he had made very many careful experiments on these two points, and he was now able to state the following facts: (1) that the medicinal administration of arsenic almost invariably increased the secretion of urine, provided that there was no organic disease of the kidneys; (2) that the rough test with copper foil would fail to detect arsenic in the urine when it was given as a medicine. Dr. Whitford and Mr. Lowndes had also submitted the urine of patients who were taking full medicinal doses of arsenic to chemical analysis, and the rough test with the copper foil had failed to discover the presence of the metal.—Mr. PAUL and Dr. DAVIDSON also took part in the discussion on the paper.

## PLYMOUTH MEDICAL SOCIETY.

*Angular Spinal Curvature.*

A MEETING of this society was held on Saturday, Oct. 20th, Mr. E. M. RUSSEL RENDLE, Vice-President, in the chair.

Mr. W. SQUARE read a paper entitled "Angular Spinal Curvature." He recalled the frequency of abscess &c. seen during his younger days, but now becoming more rare; he defined lateral and angular curvatures, and confined himself to the consideration of the latter. He had seen a child born with it, and known a case develop at the age of seventy. He dwelt on the part played by trifling accidents in causing the disease, and enumerated the early symptoms—"growing pains" in the side, "stomach-ache," inability to walk, &c. The "growing pains" were defined as neuralgia due to irritation of the sensory nerves by the disease. Mr. Square considered his friend, Mr. Chas. Lafayette Taylor, of New York, to have been the pioneer of the present rational mode of treatment by demonstrating that to relieve the pressure on the inflamed cancellous bodies it was necessary to throw the strain on the harder articular processes. Then followed Sayre and the era of the plaster jacket, and Callender's treatment by distension of the abscess cavity with carbolic lotion. Cocking, a Penzance hatter, invented a method of stiffening felt, and the poroplastic jacket was evolved. Emphasis was laid on the close fit required in these jackets just above the hips by a band pulled taut while the felt was yet pliant from the steam bath. Davy's method of applying the plaster jacket with the patient lying prone on a hammock of hessian was next described, and, in conclusion, Mr. Square discussed the operation of laminectomy, and considered that cases of spinal caries in the West differed widely from those described in Mr. Parkins's paper,[1] and hence this treatment was rarely called for.—Dr. FOX preferred the plaster jacket as most generally applicable, and suggested the use of two vests, the outer adhering to the plaster, the inner removable for washing.—Mr. RIDER referred to the difficulty of differentiating between hip and spinal mischief.—Mr. WOOLSCOMBE advocated prolonged rest in the prone position.—Mr. LUCY narrated two cases of neuralgia due to commencing spinal caries, advocated the prone position, and asked Mr. Square's experience of the effect of a jacket on the course of a spinal abscess.—Mr. C. RUSSEL RENDLE agreed with Dr. Fox as to the value of the plaster jacket.—Mr. WHITEFORD referred to the diagnosis between rickety and tuberculous spinal curvatures and described Mr. Howard Marsh's test.—Mr. SQUARE replied.

[1] Brit. Med. Jour., Sept. 29th, 1894.

THE Department of War and the Treasury have united in France to further the cause of preventive medicine. It is stated that the authorities of the Pasteur Institute will be given official leave by both departments to choose from among the horses no longer fit for military service such animals as appear to them suitable for obtaining anti-diphtheritic serum.

SOCIETY OF ANÆSTHETISTS.—The second annual meeting of this society was held on Thursday, Oct. 18th, when the following were elected as officers for the ensuing year:—President: Mr. F. Woodhouse Braine, F.R.C.S. Treasurer: Dr. Dudley W. Buxton. Council: Mr. H. Davis, Mr. W. Fingland (Liverpool), Dr. Richard Gill. Secretaries: Dr. J. Fredk. W. Silk and Mr. Walter Tyrrell. The members and their friends subsequently dined together at Summer's Hotel.

# Reviews and Notices of Books.

*Clinical Medicine: a Manual for the Use of Students and Junior Practitioners.* By JUDSON S. BURY, M.D., F.R.C.P. Lond., Senior Assistant Physician to the Manchester Royal Infirmary. London: Chas. Griffin and Co., Ltd. 1894.

WE have more than once commented on the fact that amongst all the indications of improvement in the methods of medical education which are to be found in the past thirty years there are none more striking than the increasing number of works devoted to the systematic exposition of the science and art of diagnosis. Not a year passes without some additions being made, either in this country or abroad, to the useful kind of literature that has a direct bearing upon clinical study. Many—nay, most—of these text-books are of a high standard of excellence, so that, although the student may be somewhat embarrassed in his selection, he can feel sure that one or other of them will equally fulfil his requirements. If, then, it be a fact—and we confess to some scepticism on the point—that the present race of new-fledged diplomates are as a body less versed in practical knowledge than were their forerunners, it cannot be said that this is owing to lack of opportunity or facilities in their hospital training. Seeing that accuracy in diagnosis lies at the root of successful treatment, the cultivation of the principles and methods of the former must be of great advantage in practice. To expound these principles and methods in a systematic and clear manner forms the chief part of the task of the writer on these subjects, and we may say at once that Dr. Judson Bury has succeeded well in this aim. His book is planned upon rational lines, for it commences with the discussion of subjective symptoms before dealing in turn with the objective signs of disease; whilst the latter are treated of first in so far as they are superficial and obvious to careful inspection, and next in regard to their detection by physical examination. For example, the discussion of pain as a symptom is sure to be serviceable, and the recent studies of Dr. Head upon the distribution of painful areas in relation to visceral diseases are an extension of this subject which will materially advance the knowledge of symptomatology and place it on a surer basis. Another excellent feature of Dr. Bury's book is the account he gives of the changes in form and size that indicate morbid states—a description greatly assisted by a profusion of well-executed engravings. The section upon the Diagnostic Characters of Diseases of the Skin is furnished by Dr. R. B. Wild in a concisely written and practical statement. It is of interest to observe that the part of the work devoted to the exposition of the Physical Examination of the Lungs is kept within due limits and has not been suffered, as has sometimes been the case with such works, to predominate too largely. Nor does the book suffer in consequence. We cannot find that Dr. Bury has omitted any fact that is material and essential; his merit is that he has avoided theoretical disquisitions and speculations which are out of place in a book intended for practical service. Dr. Thomas Harris contributes a section upon the Examination of the Larynx containing many useful practical hints upon the art of laryngoscopy. The section upon the Circulatory System is followed by one on the Blood, and that in turn by chapters on the Digestive and Abdominal Organs and on the Examination of the Urine. We miss any reference to indicanuria, and there is only a passing mention of the rarer condition of melanuria; but these are venial omissions, and the general account is ample and trustworthy. The use of the "centrifuge" as a means for procuring a sediment for microscopical examination is not apparently referred to; indeed, it has not been much in vogue as yet in this country. The final chapter on the Nervous System is excellent, the description of morbid signs being introduced by a succinct account of anatomical and physiological facts. The illustrations, too, in this as in other parts of the work, are numerous and telling. We congratulate Dr. Judson Bury upon having written a book that will take a prominent place amongst works of its class, and one, too, to which the clinical student can trust as being reliable in its facts and readable in its exposition of them.

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*Dictionary of National Biography.* Edited by SIDNEY LEE. Vol. XL. Myllar—Nicholls. London: Smith, Elder, and Co. 1894.

THIS volume of the "Dictionary of National Biography," though full of renowned and historic names, happens to contain singularly few lives of members of the medical profession. The only one of these who attained high office in the corporation to which he belonged was Robert Nesbitt or Nisbet, a pupil of Boerhaave at Leyden, where he graduated M.D. in 1721. He was subsequently created M.D. of Cambridge University and Fellow of the Royal College of Physicians of London, of which he was Censor and Lumleian lecturer during several years. The only example of titular distinction recorded among the medical biographies is Sir Richard Napier, born 1607, and described as a kinsman of the Duchess of Richmond. Originally a law student, he subsequently obtained the degree of M.D. at both Oxford and Cambridge Universities, and was knighted in 1647. By inheritance he became possessed of ample means, and is said, though not with certainty, to have been one of the first members of the Royal Society. He was made an Honorary Fellow of the Royal College of Physicians, and presented the library with the Greek commentators on Aristotle. His manuscripts are preserved in the Bodleian Library. Frank Nicholls graduated as M.D. in 1729 at Oxford and lectured there on anatomy, principally on that of minute structures. He was elected F.R.S. in 1728 and F.R.C.P. in 1732, subsequently delivering the Goulstonian and Lumleian Lectures and the Harveian Oration. In 1753 he became physician to King George II., and at the post-mortem examination of the body of that monarch discovered a rupture of the right ventricle. He demonstrated before the Royal Society that the inner and middle coats of an artery could be ruptured while the outer coat remained entire, thereby revealing the method of formation of chronic aneurysm.

Not many pharmacological treatises have enjoyed greater popularity than John Moore Neligan's "Medicines, their Uses and Modes of Administration." The author received his medical education in Edinburgh, and practised at first in his native place, Clonmel, but ultimately in Dublin, where he was appointed physician to the Jervis-street Hospital in 1841, and lecturer on materia medica in the Peter-street medical school from 1841 to 1846. In addition to editing the *Dublin Quarterly Journal of Medical Science* for many years he produced two useful treatises on Dermatology. Adam Neale, M.D. Edin. and L.R.C.P. Lond., during the Peninsular War acted as physician to the forces, and, in addition to his professional labours, was able to write interesting accounts of the military events of that stirring period in his "Letters from Portugal and Spain" and "The Spanish Campaign of 1808." He subsequently published "Travels through some parts of Germany, Poland, Moldavia, and Turkey," and "Researches respecting the Natural History, Chemical Analysis, and Medicinal Virtues of the Spur or Ergot of Rye when administered as a Remedy in certain States of the Uterus." Dr. Walter Needham entered Trinity College, Cambridge, in 1650, and became a Fellow of Queen's College, of the Royal College of Physicians, and of the Royal Society. He was appointed physician to the Charterhouse, and published a Latin treatise (commended

by Sydenham) on the Structure and Functions of the Placenta. Robert Mynors, a surgeon in Birmingham for more than forty years, published in 1783 "Practical Observations on Amputation," and in 1785 "History of the Practice of Trepanning the Skull, and the After-treatment."

The fortieth volume contains also interesting records of several of our profession who have made their mark in other ways than by medical practice or investigation. Nicholas de Farnham, elected Bishop of Durham in 1241, had previously been professor of medicine in the Universities of Paris and Bologna. On returning to Oxford, where his education had commenced, he taught logic, natural philosophy, and theology. He also became physician to Henry III. and his Queen. Thomas Newton, presented by Queen Elizabeth to the rectory of Little Ilford, in Essex, in addition to translations from Cicero and Seneca, wrote "Approoved Medicines and Cordiall Receiptes" and "An Herbal for the Bible." James Newton, M.D., produced "A Compleat Herbal &c.," which was commenced about 1680 and published in 1752, after the author's death; the sixth edition appeared in 1802. Jeremiah Newman, a member of the Corporation of Surgeons and extra-licentiate of the Royal College of Physicians, practised at Ringwood, where he died in 1839. He wrote on the "Principles and Manners of the Medical Profession," and on the "Use of Solvents as compared with Lithotomy." A more ambitious anonymous work by him was "The Lounger's Common-place Book, or Miscellaneous Collections in History, Criticism, &c." Jeffery Neve or Le Neve, a merchant and alderman of Great Yarmouth, after various contentions with his municipal colleagues, retired to the Netherlands when upwards of fifty years of age, studied medicine, and graduated M.D. at Franeker. Returning to London he practised medicine, and dabbled in astrology, and died in 1654. Wolfred Nelson, a native of Montreal, obtained his medical diploma in 1811, and practised for many years in the vicinity of his birthplace. In 1837 he became an earnest partisan of the malcontent French Canadians, and beat off with heavy loss an attack made on his property by a company of the 23rd Regiment. After many vicissitudes he recovered favour with the Government, and was ultimately appointed Chairman of the Board of Health and of the Board of Prison Inspectors, being in some degree a Canadian counterpart of John Wilkes. James Nelson, born in 1710, practised as an apothecary for fifty years in Red Lion-square, Holborn. He published an essay on "The Government of Children" and "The Affectionate Father: a Sentimental Comedy." Marchamont Needham or Nedham, a medical practitioner in the time of Charles II., seems to have published nothing relative to his profession except "Medela Medicinæ: a Plea for the Free Profession and a Renovation of the Art of Physick," in which the College of Physicians was attacked. His books and pamphlets on controversial politics were, however, very numerous. William Newnham, a favourite pupil of Sir Astley Cooper, and a general practitioner at Farnham, was one of the early members of the Provincial Medical and Surgical Association and one of the founders of its benevolent fund. He wrote some essays on medical subjects, and more important works dealing with inquiries into mental and spiritual phenomena. George Newport, who practised firstly in Chichester and afterwards in London, was a very distinguished entomologist. He was elected an Honorary Fellow of the Royal College of Physicians, and a Fellow of the Royal Society, and received the Society's royal medal in 1851 for his paper "On the Impregnation of the Ovum in the Amphibia."

Passing from medicine to other branches of science, the foremost figure of this volume is beyond dispute Sir Isaac Newton. Of Sir Isaac Newton's work and position in the world of science we have no intention of speaking. What could be said in a few lines as an estimate of either would be what everybody knows. Another great originator in mathematics, though on a smaller scale, was John Napier of Merchiston, near Edinburgh, the inventor of logarithms. The opening article of the volume treats of Androw Myllar, the earliest Scottish printer, the first products of whose press appeared in Edinburgh in 1508. James Nasmyth, the inventor of the steam hammer, James Napier, the writer on electro-metallurgy, whose work has gone through many editions, and James Neilson, the inventor of the hot-blast for iron-smelting, represent advances in the industrial arts. The work of Sir George Nicholls, as an influential Poor-law reformer, is even yet of more than historical interest. After having been captain of an East Indiaman, he settled at Southwell, Nottinghamshire, in 1819, and under his influence the expenditure in poor relief sank from £2069 in 1820–21 to £515 in 1822–23, mainly through the abolition of out-door relief and reliance on the workhouse test. The first Poor-law Commissioners, in their report published in 1834, made favourable reference to his system, and on the reorganisation of the Poor-law Board in 1847 he became its permanent secretary.

The volume is as interesting as any of its predecessors, but happens to contain no great medical names.

## THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A MEETING of the Committee of the Association of Fellows of the Royal College of Surgeons of England was held at 5.30 P.M. on Monday, Oct. 22nd, Mr. George Pollock, President, in the chair. After consideration of the financial position of the Association the report of the Council of the College to the Fellows and Members, and the annual general meeting fixed for Nov. 1st, were discussed for the purpose of determining whether it would be desirable for the committee to formulate any resolution for submission to the meeting. In view of the expression of opinion at the meeting of Fellows on July 5th in respect to the necessity for deciding upon the points in which the Charters of the College should be amended, as a preliminary step to the application for a new Charter, it was suggested that it might be advisable to move a resolution on Nov. 1st to the following effect: "That it is desirable that a conjoint committee of the Council of the College and the body corporate should be formed to consider what alterations in the Charters are desirable."

The subject of the election of the President of the College was then considered in connexion with the following answer of the Council of the College to the resolution passed by the Fellows that the Council be requested to take steps for obtaining the opinion of the Fellows on the mode of election to the office of President: "That the Council are not prepared at the present time to consult the Fellows or solicit their opinion through other means than the meetings of Fellows which have been lately established. The Council would, however, point out that, if any Fellow is anxious to test the opinion of the general body of Fellows as to whether or not it is desirable to make any change in the present mode of election to the office of President, it is open to him to do so by submitting a motion on the question to the meeting of Fellows in January or to some subsequent meeting." The attention of the Committee was drawn to the circumstance that at the meeting of Fellows in July there was almost a complete coincidence of views on the part of the Association and the Society of Fellows, and it was suggested that it would be expedient, if possible, for the two bodies to come to an understanding as to the line of policy which should be pursued in reference to the mode of election of the President and other matters of collegiate interest. Accordingly the following resolution was proposed and seconded: "That the Society of Fellows be asked to nominate a subcommittee to meet and confer with a subcommittee of the Association of Fellows to agree upon a joint course of action in reference to the election of the President and other matters." After discussion the resolution was passed, and the honorary secretary was directed to call upon the President of the Central Executive Committee of the Society of Fellows and to report the result of the interview to the committee at their next meeting, which was fixed for Wednesday, Oct. 31st.

# THE LANCET.

*LONDON: SATURDAY, OCTOBER 27, 1894.*

WE report elsewhere the proceedings at the reception of a deputation by the Committee of the Great Northern Central Hospital on the subject of pay wards, which are of considerable interest to the profession. The question is one that concerns not only this hospital and the practitioners of the north of London—it affects the whole of the profession. Nothing could exceed the courtesy with which the deputation was received and listened to. It will be seen that the points of the subject were fully brought out by the various speakers, and, unfortunately, it will also be seen that they did not seem to succeed in making any serious impression on the minds of the Committee. The Chairman did, it is true, promise to withdraw the advertisement of the pay wards, but he held out no hope that they would relinquish the scheme itself, though Dr. STOKES pointed out, on the authority of the late secretary, that the beds of the hospital are not in excess of the wants of those classes in the district who cannot pay. It would be affectation to think that we have heard the last of this subject. The governors of the hospital have not had the chance of saying anything on the subject, and it may be hoped that they will see, as one speaker clearly pointed out, that every bed taken for a pay patient is one taken from those who cannot pay, to whom it has been the glory of English hospitals to minister. The Chairman seemed to rely on the abstract provision in the constitution of the hospital for pay wards. But between such an abstract provision and the creation of such an objectionable and unconsidered scheme as the present one there is a great difference; and it remains a matter of complaint that the committee should have adopted the scheme without giving the governors the slightest opportunity of discussing it. The deputation argued that the scheme was distinctly against the interest of the poor. It might have argued with equal force that it was against the interest of the hospital itself. It is a curious and significant fact that, as the promiscuous crowds repairing to hospitals increase, the pecuniary support of hospitals seems to diminish. People will give willingly to that which is a veritable charity for those who cannot pay; but the suspicion that hospitals are abused—that is, that they are largely used by those who can afford to pay for their own medical attendance—damps the ardour of charity and leads subscribers to think that they can make a better use of their money. The serious impecuniosity of hospitals corresponds fairly closely with the time when it was shown that they are much abused. We attach the greatest importance to this view of the subject, and regret the action of the Committee, because we believe that it will be bad for hospitals generally. The want of medical "lodgings" for classes that do not care to use the ordinary wards of hospitals is one that can be supplied, and is being supplied on strictly commercial principles.

Over and above the public and the social aspects of this question, there is its professional aspect. The profession has carried its gratuitous service to such lengths that large sections of the public do not think of medicine as a thing to be paid for. Medical men are apt to be regarded as good angels sent down from Heaven and fed from some mysterious source. Medical education, however, is exacting and costly. The State, or the bodies sanctioned by the State, impose very severe conditions on those entering the profession. But the payment of medical men is a thing to be shirked by large classes of persons who would not evade any other honest debt. Certain classes will take medical attendance gratuitously who would not themselves work gratuitously, and who would not ask service gratuitously from any other class. This does not apply exclusively to any class, but largely to all classes. There are working men who take a pride in paying their family medical attendants, and whose medical attendants takes a pride in attending them, though it must be admitted of late years, owing to hospital abuse, that many working men have come to think that they have a right to medical attendance on charitable or semi-charitable principles.

This unjustifiable assumption must be corrected, and amongst those who have the power to correct it are the members of the medical staffs of our hospitals. They know the claims of medical men and their difficulties, and they have the ear of the committees of the hospitals which they so ably serve. They owe it to the rank and file of the profession to use their official position to correct and limit this ever-widening abuse of hospitals. The profession in the north of London feel that they have a claim on the consulting staff of the Great Northern Central Hospital to see that professional interests are not overlooked. They speak as if they believed that this claim has been overlooked or disregarded, and as if the staff had accepted duties which practically involve the taking of other men's patients and invade gravely the ranks of private practice. We can readily believe that this was done by the staff without due thought. But evil is wrought by want of thought. Be this as it may, the feeling is very deep and the staff of the hospital will not, we are sure, ignore it. We cannot believe that they have willingly accepted the new duties imposed on them. And in the dissatisfaction of the profession, which has given many proofs of friendship to the hospital, they have an excellent excuse for demanding some great modification of a scheme that is calculated to demoralise still further the relations of the public to our great hospitals and to the profession.

ATTENTION is at the present moment being drawn to the value which the town council of Bournemouth attach to their borough as a leading health resort, as evidenced by the salary which they assign to the principal official who is concerned with maintaining its sanitary reputation—namely, the medical officer of health. It will hardly be credited that Mr. NUNN, who has held that post for some twenty years, and who has performed the duties with more than efficiency in the case of a population of between 40 000 and 50,000 inhabitants, receives a salary of only £175 per annum. During his tenure of office Mr. NUNN has organised a system of "sanitary house certification,

a system which he actually puts into the hands of the town council a sum of about £100 a year. We hardly need point out that it is no part of his duty to inspect houses with a view to granting certificates unless he receives a substantial fee for each such visit and certificate; but we can readily see that it is objectionable that an officer of the sanitary authority should take fees for such work, except in the form of a definite sum assigned to him for that purpose by the authority; but Mr. NUNN has had his ambitions bound up with the welfare of Bournemouth, and, so far as we can understand, the town council have taken the fees which have resulted from the inauguration of the certificate system, but have not thought of any compensation to its originator and to the officer on whom its success has so largely depended.

Then, again, the notification of infectious diseases has come into operation in Bournemouth in comparatively recent years, and we imagine that there is hardly a town in England where it is more important that a medical officer of health should instantly utilise the greatly increased amount of information thus acquired than Bournemouth. The recurring notices under this Act must have largely added to Mr. NUNN'S duties; for even if in many cases there is no need for his active intervention he must at least be able to satisfy himself and his sanitary authority that all needed precautions are being taken under the guidance of the medical practitioner in attendance on the sick. Here, at least, was an opportunity for recognising long-continued and excellent services, but we need hardly say that the present remuneration attached to the post of medical officer of health is in itself a proof that the authority responsible for the health of the community in Bournemouth did not avail themselves of that opportunity.

At last, however, the local press and the ratepayers learnt that their town council were in some degree moving with the times and that Mr. NUNN'S long services had been recognised by raising his salary from £175 to £250 a year. The new sum was, indeed, inadequate, and compared disadvantageously with salaries to other similar towns, but it was at least a step in the right direction. However, the rumour was false, and the explanation of the circumstances which gave rise to it only exposes still further the utter inadequacy of the emoluments attaching to the public health service in this health resort. Mr. NUNN held two offices, one as medical officer of health at £175 a year, and the other as medical attendant and director of the borough infectious hospital at £75 a year. But even as regards the latter salary the town council seem to know how to take care of themselves. It is locally asserted that the medical attendance in the hospital costs the town council an average of 5*s.* 3½*d.* per patient; but "this cost is always repaid to the borough by the patients." And thus it comes to pass that people who are able to pay something at least, get off cheap by reason of the fact that the town council utilise their medical officer of health as a medical attendant on paying patients at a rate of remuneration which, having once been made known, ought immediately to come to an end. For these services to these patients, most of whom seem able to pay, Mr. NUNN'S salary gives him 1¼*d.* per visit per patient, and in one year these visits have involved travelling at his own cost no fewer than 1460 miles.

And now to return to the rumour as to a rise in salary. The council, it appears, simply united the two offices and the two stipends into one, and there resulted by a simple process of addition a salary of £250 a year. By some people it is imagined that this was done because the Local Government Board have power to certify for repayment out of the county funds one-half of the salary of the medical officer of health, and that if half of £250 could be obtained instead of half of £175 there would once more be a gain to the town council. We cannot share in this view, which would be a mere subterfuge with which the council ought not to be credited. But, for the satisfaction of those who have hinted at such an idea in the public press, we may say that both the county council and the Local Government Board are quite capable of taking care of themselves in such a matter. It is by no means the first time that salaries have been lumped together with an open intention of securing an increased repayment; and if it should happen to be put forward in this case it will not be the first time that a refusal has followed on the proposal.

We must confess that we see no object in a mere formal combination of two offices that are and must remain distinct. The medical officer of health is in nearly every case the proper person to hold the post of medical director to the public infectious hospital, but the emoluments of the two posts have no concern with each other; and in a case like that of Bournemouth, where the health officer is so inadequately paid, the post connected with the hospital calls with special force for a really remunerative salary. Now that the ratepayers of Bournemouth understand this question we feel certain that they will have sufficient pride in their town and a sufficient determination to see it stand high amongst health resorts to prevent any rumour getting abroad to the effect that they or their representatives on the council have decided that, whatever is spent in other directions, work in the direction of controlling and maintaining the health of the public must be done cheaply.

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THE excellent example set by Dr. TATHAM, the late medical officer of health of Manchester, in preparing a life table for that city has been ably followed by Dr. A. K. CHALMERS, who has just published a life table for Glasgow, of which city he is one of the medical officers of health. This life table is based upon the population of Old Glasgow during the last decade, which numbered 511,415 persons in 1881 and 565,839 in 1891, and it therefore deals with the mortality recorded during more than 5,000,000 years of life—a basis sufficiently large to yield reliable results. Had the life table been based upon the statistics of the enlarged area of the city the results would doubtless have been more favourable, since the density of the population in the old city was 93 persons per acre, while within the area of the new city boundaries the density does not exceed 56 persons per acre. According to Dr. CHALMERS' table the mean duration of life at birth—based upon the mortality experience of Glasgow during the ten years 1881–90—is 36·4 years, 35·2 for males and 37·7 for females. Compared with the 1871–80 English life table, male life in Glasgow is shorter by 6·2 years, and life among Glasgow females, judged by the same standard, is shorter by 6·9 years. When, however, an

English life table for the last decade, 1881–90, is constructed the expectation or duration of life in England will certainly be found to have considerably increased, and the Glasgow figures will then compare still more unfavourably with those dealing with the whole country. If we compare Glasgow with Manchester, another great manufacturing centre, we find that there is no great difference in the mean duration of life between the two cities, male life in Glasgow being slightly longer than in Manchester, while among females Manchester has a slight advantage. It should be noted, however, that the Manchester figures are based upon a population with a density of only about 40 persons per acre; while, as before stated, the density of the population dealt with by Dr. CHALMERS is 93 persons per acre. In the extended edition of Dr. TATHAM'S life table the expectation of life within the Manchester township, with a density of about 90 persons per acre (nearly corresponding to the density of Glasgow), the mean duration of life is only 28·8 years for males and 32·7 for females. At each age-period up to 85 years the male death-rate in Glasgow exceeds the English rate, and at each age-period up to 65 years the female death-rate shows a similar excess. Compared with Manchester, the Glasgow death-rate at each age-period up to 25 years exceeds that recorded in the former town, while at each subsequent age-period the reverse is the case. That a very high death-rate exists among Glasgow children under five years of age is shown by the fact that, while the rate of mortality at this age-period in England and Wales during the ten years 1881–90 did not exceed 62 per 1000, it was equal to 86 in Glasgow; in Manchester the rate was 84 per 1000. The death-rates at all ages in Glasgow are 25·0 among males and 23·7 among females, against 26·1 and 22·6 per 1000 respectively in Manchester. Dr. CHALMERS, for the purpose of comparison, gives also many corresponding statistics relating to Brighton from the life table for that town constructed by Dr. NEWSHOLME, its able medical officer of health. This facilitates comparison between Glasgow as a manufacturing centre and Brighton as a health resort. As might be anticipated, the expectation of male life in Glasgow compares unfavourably with that in Brighton, for in the latter town the average duration of male life is nearly forty-four years, whereas in Glasgow, as before stated, it is little more than thirty-five years. In Manchester it is rather less than thirty-five years. For males completing their twentieth year there is a probable after-lifetime of 40·6 years in Brighton and 36·9 years in Glasgow, and for males completing their forty-fifth year the expectation of life is 22·4 years in Brighton and 19·5 years in Glasgow. Compared with Manchester, males born in Glasgow have a longer expectation of life at all age-periods. Another interesting table shows the number surviving at different ages out of a given number born. Out of 100,000 males born in Glasgow, 33,130 die before completing their fifth year and more than half die before completing their thirty-ninth year. Of the females born, rather more than one-half, or 50,300, live to begin their forty-first year, but less than half of those born complete it. Comparing Glasgow with England and Wales and Manchester, we find that of 100,000 males born 73,407 were alive at the end of their fifth year in England and Wales, 67,893 in Manchester, and 66,870 in Glasgow; in other words, there was an excess of deaths in Glasgow over England and Wales of 6,537, and over Manchester of 1026. At forty-five years of age, or in the middle period of adult life, the number of survivors in England and Wales is 52 237, in Manchester 43,664, and in Glasgow 44,653. At the age of seventy-five there are 14,496 living in England and Wales, 6069 in Manchester, and 8711 in Glasgow. It is to be greatly hoped that ere long we shall have life tables for our other largest towns.

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WE are often asked if it is practicable for a student to obtain a medical qualification as well as the licence in dental surgery without greatly prolonging the time required, and this more especially since the introduction of the conjoint examinations of the Royal Colleges of Physicians of London and Surgeons of England. It would be illusory to state that the difficulty has not increased since the time when the diploma of the Royal College of Surgeons could be obtained singly, but the regulations of the examining boards are arranged to give every facility to the student, and if the student works methodically the medical and special dental examinations can be passed contemporaneously by any man of average ability. But he must be orderly and have the power of regular and steady application. The best of such methods is that suggested by Mr. MORTON SMALE, the Dean of the Dental Hospital of London. During the mechanical apprenticeship of three years, which is recognised by the Royal College of Surgeons of England if it be served previously to the preliminary examination, the student can receive instruction in biology, chemistry, including chemical physics, practical chemistry, pharmacy, and materia medica from any registered practitioner or pharmaceutical chemist, or at a public hospital or infirmary or dispensary; and after the preliminary examination has been passed he should register as both a dental and medical student and present himself for examination in these subjects before entering a hospital. As an alternative course he may take the latter two subjects later in his career—viz., at the second examination—and then enter simultaneously at a general and dental hospital. After the expiration of his first winter session at a general hospital he should have passed in elementary anatomy and physiology, and at the end of his second winter in anatomy and physiology. At the expiration of two years he may present himself for the dental licence. He will, during these two years, have been attending simultaneously both a general and dental hospital. During the remainder of his time he should devote himself to surgery, medicine, and midwifery, &c., in which subjects he may be examined at the expiration of two years from the time of passing the second examination; or he may spread the examinations over a period of years. When time is not a great object it is a better course to attend a general hospital only until after the first and second conjoint examinations have been passed. The special subjects required for the L.D.S. diploma are dental anatomy; physiology (human and comparative); dental surgery, two courses; dental mechanics, two courses; metallurgy, one course; practice of dental surgery, two years; apprenticeship to a registered dental practitioner, three years. Apart from the saving of time effected by passing some of the

examinations during the apprenticeship period there is the distinct advantage that the student fresh from school or college does not allow his memory to rust—to forget how to learn is only too easy. To all those who can afford the time and money we strongly urge the addition of a medical to the dental qualification, and, in fact, we have always maintained that this should be made compulsory. Qualifications, we readily admit, are not everything; but they are often the only available means by which the probable capabilities of a professional man can be judged. The extra knowledge gained, moreover, by taking a comprehensive degree must prove of great value in everyday practice, in broadening its possessor's views, while dental appointments will be more readily obtained by the fully qualified surgeon and physician.

# Annotations.

"Ne quid nimis."

## THE ANNUAL GENERAL MEETING OF FELLOWS AND MEMBERS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

IT will not be superfluous to remind the Fellows and Members of the College that the annual general meeting, at which the report of the Council of the College for the collegiate year 1893–94 will be presented and discussed, will take place at 3 P.M. on Thursday, Nov. 1st. The Council of the College has just adopted regulations for these meetings, one of which requires ten days' notice of motions; but on the present occasion this regulation will not be in force. There is, therefore, ample time for both the Fellows and Members to deliberate upon the present situation and frame resolutions for submission to the meeting. We believe that important changes will ere long be made in the government of the College, but these changes will depend upon the temper and attitude of the Members of the College. There would seem to be a decided disposition among the Fellows to assist the Members if the Members display a conciliatory spirit. It cannot be long before a new Charter will be required. If the Fellows determine that they ought to elect the President of the College like the Fellows of the sister College the change will necessitate a new Charter, and there are other questions in which the Fellows are interested which cannot be settled without one. On the side of the Council we note that a new Charter may be needed because, as stated in the report, the Council are unable under the present Charter and by-laws to secure an adequate return for the heavy expenditure involved in the Fellowship and Dental Examinations. The necessities of the Council will be the opportunities of the Fellows and Members. We, therefore, strongly recommend to the Members an attitude at once dignified and progressive. Let them temperately but persistently urge their claims to a voice in the management of the College and we believe that the tendencies of the age and the sympathy of the Fellows will suffice to secure success. At the meeting on Nov. 1st we understand that a resolution will probably be moved on behalf of the Fellows to the effect "that it is desirable that a joint committee of the Council and the body corporate should be appointed to determine what alterations in the Charter are required." This resolution has regard alike to the requirements of the Council, the Fellows, and the Members, and ought to be supported warmly by the Members of the College. If they are wise they will abandon the attitude assumed at the last annual general meeting and ensure a large attendance of those who are interested in the good government of the College. The "beggarly account of empty" benches so conspicuous last year ought to give place to an overflowing attendance such as marked the period immediately preceding the last Charter.

## SCIENCE TEACHING IN ST. MARY'S HOSPITAL MEDICAL SCHOOL.

OUR attention has been drawn to a letter from Dr. Arthur P. Luff which appeared in the columns of our contemporary *Nature* on Oct. 18th. The following sentence in Dr. Luff's letter cannot be allowed to pass without distinct contradiction: "The list," he writes to the editor of *Nature*, "relating to St. Mary's Medical School in the number of THE LANCET from which you prepare your tables teems with inaccuracies and omissions. It is not a list issued with any authority from this school, nor is it submitted for revision or correction to any official of the school." With regard to the inaccuracies and omissions, our conscience is clear, for this list, "not issued with any authority from the school, and not submitted for revision or correction to any official of the school," was submitted to the Dean of St. Mary's Hospital, and as we write we have before us the proof returned to us from St. Mary's Hospital, with three manuscript corrections upon it. That the corrections were insufficient or faulty cannot possibly be attributed to us, and we presume that Dr. Luff will allow that the Dean of the Medical School is at least "an official of the school." So much for the justice of Dr. Luff's stricture upon us, but we cannot leave the subject without pointing out for his consideration why we think the letter ill-advised and even in bad taste. For many years we have spared no pains to make our Students' Number a complete, practical, and accurate guide to the medical profession. To effect this we have always taken the only possible course in a task of such magnitude. We have relied on the coöperation of the Deans of the different schools. We have invariably received it, and have never failed to acknowledge our gratitude for the assistance. Every list and every table that appears in the columns of our many "Students' Numbers" have been submitted to the inspection of the deans of the schools, and all necessary alteration has been invited. Year after year these masses of figures have appeared, and no one has impugned their accuracy. Would it not have been more seemly if Dr. Luff had pointed out to us that errors had crept into the account of his particular school, or had ascertained from the official head of his school the source of responsibility for those errors, before making violent and, as a detail, incorrect statements about us in one of our contemporaries?

## THE HEALTH OF THE CZAR.

IN adverting to the condition of the Czar we took occasion to caution our readers against giving credence to all the various and conflicting accounts which had been published on the subject, notwithstanding that some of them apparently rested on more or less well-grounded authority; and we pointed out that those who were professionally charged with the responsibility and care of the Czar's health would naturally be restrained by a sense of honour, which is happily cosmopolitan, from violating the confidence which must necessarily exist between a patient and his physicians—whether that patient happens to be an Emperor or some member of the humbler walks of life—in order to gratify the desire for news on the part of the public, however keen and sympathetic their desire for information may be. The official bulletins issued by the physicians in attendance on the Czar are, of course, absolutely reliable, as far as they go, but they do not state any of those particulars which the

profession generally would regard as exact scientific indications of the Imperial patient's actual condition at the moment. They are, of course, only intended to convey to the outside world, and to the nation more immediately and directly interested, information to which the public is entitled, in view of relieving or abating the weight of national anxiety, which is only augmented by suspense. Still, we do not think that, even in the absence of any reference to such points as the temperature or pulse indications, there can be much doubt in the minds of our readers as to the nature of the Czar's illness. The symptoms clearly point to a form of Bright's disease, and the œdema of the lower extremities, the general weakness, attacks of breathlessness, as well as the insomnia, vomiting, and mental depression, are but the sequence or concomitants of the blood changes and cardiac failure induced by that disease. There is no need to dwell upon the liability to blood impurity caused by the retention of effete products or upon the impoverishment and lowered nutritive properties brought about by a chronic leakage of some of the constituents of that fluid, for these conditions will be universally recognised by members of the medical profession as commonly attendant on the disease. Assuming this view to be substantially the correct one, it is almost needless to add that the prognosis is most grave, but the duration of the disease, in the absence of precise data, is nevertheless uncertain, the sufferer from it being liable to serious fluctuations and dangerous complications at any time. The operations in His Imperial Majesty's case, about which the public seems to be sorely puzzled, no doubt refer to simple punctures for the escape of fluid and the relief of the tension of the dropsical extremities.

## SNAKE CANNIBALISM.

F.Z.S. writes to us as follows:—"A brief and substantially accurate note in the *Times* of Tuesday last records the fact that a boa constrictor at the Zoological Gardens has lately swallowed one of its mates. This occurred over a fortnight ago, and the facts are briefly as follows. One compartment of the reptile house contained three boa constrictors, of which one was about nine feet and another eight feet long. During the night the smaller of these two disappeared, and the larger was found to be enormously distended and unable to curl up. The cannibal snake was considerably inconvenienced by his meal, and remained for a week in a lethargic condition and suffered from dyspnœa. It is supposed that the boa had no deliberate intention of eating his companion, but that he began by swallowing part of a pigeon which was projecting from the mouth of his companion, and that the rest of the action was involuntary. It is a very unusual circumstance for one boa constrictor to swallow another, and were this not so they would have to be kept apart—for the sake of economy, if for no other reason. In this case the money value of the deceased snake was probably £7 or £8. Although there was probably only about a foot in the difference of the length of the two snakes, the one which was eaten did not weigh more than half as much as the other. The internal capacity of some species of snakes is enormous, and there are on record instances of their having swallowed animals of greater weight than themselves. Dr. Stradling has related the case of an Elaps lemniscatus which swallowed and afterwards disgorged an Amphisbœna longer than itself and weighing half as much again. Boas are certainly not always very particular as to the nature of their food, and some years ago one at the Zoological Gardens swallowed her blanket. She was, however, made to disgorge it, when Mr. Buckland described it as being like a 'long flannel sausage.' Like other creatures which have the power of consuming an immense amount of nourishment at one time snakes have also the power of fasting for a considerable period. Catherine Hopley, in her interesting book on the curiosities of serpent life, lends her authority to the story that they may live for two years without food, and there is at any rate evidence to show that a rattlesnake lived at the Zoological Gardens for some months without food."

## "COUNTY COURT LAW."

A CORRESPONDENT informs us that he has taken a claim into the county court for forty-five visits in a case of scarlet fever. The child to whom they were paid recovered. The judge adopted the theory of the father that the child had not had scarlet fever, as it had not been kept in bed all the time. Our correspondent suggests that such reasoning on the part of the judge was not permissible. It is certainly a new departure for a judge to go behind the diagnosis of the medical man, and a new departure of which we entirely disapprove. We venture to doubt whether such a decision would be upheld in a higher court. Perhaps there may be some facts which have not been reported to us by our correspondent; but, if not, the case seems to be one that should be carried further. On one point we disagree with our correspondent. He calls this "county court law." We cannot endorse the implied censure. Speaking with a fair knowledge of county court decisions, we are impressed, on the whole, with their reasonableness.

## A FATAL CASE OF DIPHTHERIA WITHOUT MEDICAL HELP.

IT seems incredible that a boy aged ten years should have diphtheria and be allowed to die from it without the benefit of medical attendance. Yet this is the case of Thomas Oborn, of Holland-street, Kensington, as investigated by Mr. Luxmore Drew, the coroner for West London. The boy's mother poulticed the throat, and he appeared much better, but the next day he took his dinner and half an hour after was found dead on the stairs. There had been no other cases in the house before that; but since then two other children had been removed suffering from sore-throats. The drains were said to be in perfect order. Mr. John Starling, who was called in after death, described the post-mortem examination. The right ventricle of the heart contained a clot, and the windpipe was extensively affected with diphtheria. He thought it a bad case and a lesson to every person to call in a medical man early in the slightest throat affection. The advice is momentous. However difficult a disease diphtheria may be to medical men, it must be much more so to those who know nothing of medicine, and, as in this case, it may not even be detected till other persons have been infected.

## PUBLIC HEALTH ADMINISTRATION.

DURING the last week two magisterial decisions were recorded, each of considerable importance to sanitary authorities. Mr. Sheil, at Westminster, declined to make an order for the remedy of certain dilapidations, although he was prepared to require the removal of stagnant pools in a backyard. The question is, of course, whether dilapidations of ceilings, walls, and floors constitute nuisances within the meaning of the Public Health Act. Now there is nothing in that Act prescribing that dilapidations are to be regarded as nuisances; but "any premises in such a state as to be a nuisance or injurious or dangerous to health" are to be deemed a nuisance. This does not help us very far, for in effect the Act defines a nuisance to be a nuisance. The fact that the dilapidations, if dangerous to health, may be the subject of an order, however, goes further. We presume no health officer will feel any difficulty in asserting that dilapidated

houses cannot be kept clean, and that dirty houses are dangerous to health. Indeed, the magistrate who heard the case in question would, we presume, have accepted this view; but he would have required some relation to have been shown between the dilapidations which were found to exist and danger to health. Probably he would not have been willing to take this evidence from the sanitary inspector. At Marylebone Police-court the question was considered, What constitutes a sewer? The Metropolis Local Management Act defines a drain which is common to two or more houses to be a sewer, unless the combined system of drainage has received the consent of the Vestries and District Boards, or even of the Commissioners of Sewers, bodies which have long ceased to exist in the metropolis excepting in the City. The vestry of St. Pancras desired to impose the cost of reconstructing a combined system upon the owners of some houses, but the magistrate held that unless the vestry or their predecessors had given their sanction to this arrangement in respect of the particular houses the drain was a sewer and its maintenance devolved upon the authority. Further, he held that the onus of proving that such sanction had been given rested on the vestry. It is possible there will be an appeal from this decision, but we believe it is sound and that it is, moreover, reasonable. No doubt this view has not been usually held in London, and owners of houses have been called upon to reconstruct combined drainage at their own expense. Probably in the future they will not be slow to require the sanitary authority to produce the evidence of sanction necessary to prove that the drain is not a sewer.

## THE PREVENTION OF TUBERCULOSIS.

IN a paper read at the Budapest Congress of Hygiene and Demography Dr. Cooper-Pattin, medical officer of health of the city of Norwich, advocated strongly the claims of tuberculous diseases to be included among those against which the efforts of preventive medicine are specially directed. He credits them, collectively, with a mortality equal to that of the thirteen most fatal of the ordinary zymotic diseases taken together, and states that nearly half of the deaths at ages between fifteen and thirty-five years—"practically the best working period of an artisan's life"—are due to one or other form of tuberculosis. He demands, firstly, their addition to the schedule of maladies compulsorily reported under the Infectious Diseases' Notification Act, with the threefold object of ascertaining in detail and recording their exact incidence, of applying systematically such preventive measures as may be found to be practicable by the light of present or future knowledge, and of educating the public to a recognition of the fact that precautions are necessary. Dr. Cooper-Pattin would have the Local Government Board impress upon sanitary authorities generally the desirability of making tuberculosis notifiable, and he points with approval to the recent action of the Board in regard to epidemic diarrhœa. Next, he called for regular inspection of all cattle, and particularly dairy cattle, by skilled veterinary inspectors, armed with power to take effective action where necessary. His third line of attack was the training of children at school in the broad elementary principles of hygiene as a part of the scheme of national education. Among the precautions to which notification would lead he instances the prevention of indiscriminate admixture of tuberculous with healthy persons in schools, factories, and workshops. Dr. Cooper-Pattin does not attach much weight to the assertion that public opinion is not yet ripe for the compulsory notification of tuberculosis, this being, he contends, a question rather for the expert advisers of the public. He offered the novel suggestion that the notification should not be valid unless the bacillus tuberculosis be demonstrated in some secretion, excretion, or discharge; the bacteriological examination being made, if necessary, in the public laboratory, which he thinks will before long be regarded as part of the necessary equipment of a health department.

## TESTIMONIAL TO MR. WALTER RIVINGTON.

A MOVEMENT has been set on foot in response to a strong expression of feeling on the part of many old students of the London Hospital, having for its origin the public recognition of the great services of Mr. Walter Rivington to the institution, as well as his many acts of personal kindness to his fellow-workers, young and old. A representative committee has been formed, and it is proposed to invite Mr. Rivington to a dinner at the Criterion Restaurant on Thursday, Nov. 15th, and to present him on the occasion with some permanent token of the high esteem in which he is held by his old pupils and friends. The chair will be taken by Mr. Hutchinson. Dr. George Wright, assistant medical officer to the General Post Office, St. Martin's-le-Grand, is acting as honorary secretary, and will answer all inquiries.

## TROPHIC TROUBLES FROM SECTION OF THE SCIATIC NERVE.

A CURIOUS case was published a few months ago by Dr. Haussmann in the *Berliner Klinische Wochenschrift*. The patient was an engraver on copper, who died at the age of seventy years from broncho-pneumonia. His history is incomplete, but he had had at the age of three years an affection of the knee and of the arm, and when he appeared at the hospital there was loss of sensibility to pricks below the right knee. At the necropsy it was found that there was a cicatrix on the right arm, due probably to a fistula from the bone, which had healed; on the right thigh above the knee there was also a cicatrix ten centimetres long. In this cicatrix the sciatic nerve was involved, and it ended in a neuroma of nodular form. The articulation of the knee was completely ankylosed, and the right foot had an appearance strongly suggestive of lepra mutilans. The middle toes had disappeared, leaving no cicatrices; the great toe and its nail were atrophied; while the last two toes were similarly atrophied and showed traces of nails. The absence of malformations elsewhere and of the bacillus of leprosy showed that the condition was not leprous, and it was evident that it was not a congenital condition. Dr. Haussmann suggests that there had probably been at some former time a tuberculous inflammation of the joint, and that the sciatic nerve had been destroyed by the suppuration or by surgical interference giving rise to the trophic disturbances which have been described.

## "MEDICAL ELECTRIC INSTITUTE, LIMITED."

IN the *Financial News* of the 20th inst. there is an advertisement of the above projected company, which it is proposed to build upon the wreck of the notorious Medical Battery Company, now in liquidation, and which was associated with the name of Harness and others. As a speculative venture pure and simple we should not consider it worthy our notice, but since the avowed object and aim are to resuscitate a business the methods of which have lately been fully exposed in the law courts and shown to be in some instances worthless and utterly devoid of a scientific basis we cannot withhold a word of protest and warning. Moreover, in the prospectus it is stated that one object of the new company is "to provide for and carry out, under the control and superintendence of a *duly qualified medical man*, the treatment of diseases by means of galvanic, electric, and mechanical appliances, &c." Now it may not be generally understood by the public that for a medical man to lend himself to such a purpose would brand him with the stigma of

charlatanism and quackery, and would subject him to the punitive powers of the General Medical Council. Are the persons responsible for the floating of this company ignorant of the fact that they are putting before their would-be shareholders a promise which they could not guarantee to fulfil? If not, they should clearly understand that though they might appoint a duly qualified medical man the latter would be but the tool of a day, seeing that he would in quick time be stripped of his licence, as others at no distant date have been for similar offences.

## THE BIRTH OF AN INFANT PRINCESS OF ROUMANIA.

THE birth of an infant princess of Roumania is an event of European interest. Patriotic Roumanians will hail her advent as a welcome addition to the fabric of their national monarchy and an additional bond of union with friendly States. Germans will feel a natural satisfaction in one who is related to them by the blood of both parents. We in this country, as the subjects of the royal and imperial lady who has gained by this auspicious birth a nineteenth great-grandchild, have a claim at least as true to the right of congratulation. No one can better appreciate the true purport and value of the family tie than our justly respected Sovereign. Her character and conduct have always tended to confirm its strength as a social force in this country. There is consequently a peculiar and beautiful fitness in the fact that Her Majesty's domestic bond, long since formed, and afterwards rudely severed by death, has proved through many succeeding strains fruitful in the happiness of home and children's love. We hear much daily of the freedom and the dignity of a new womanhood, which has for its object other and supposed worthier aims than the claims of maternity. We will not dispute the value and utility of some of these. We would be the last, however, to assert the superiority of their votaries to many women who can understand and fairly gauge the indispensable position of their sex in home life. The royal ancestress of sixty direct descendants, placed or to be placed in stations of responsibility, is, we doubt not, wisely cognisant of the high qualities necessary to a parent to secure the proper training of her children. Her own example has shown that the performance of this duty is not incompatible with other social or official functions.

## SLIPPERY THOROUGHFARES.

NOT one of the needful appurtenances of medical practice is more helpful to the busy practitioner than his horse. The possession or the lack of this valued assistant makes for him all the difference between facile efficiency and a daily burden of physical weariness which cannot but impair the effect of the most skilful service. It would, therefore, be remarkable if medical men did not regard with some favour any well-founded complaint affecting the safety of their horses. The claims which are made by their mere work upon the strength of these animals are sufficiently severe. Time, distance, and exposure tell their tale in exhaustion soon enough. It needs not that the roadway should become a trap. Such it is, nevertheless, in many places, and in different ways. We would now refer to one such instance in particular—namely, the slippery smoothness of many London thoroughfares paved with wood or asphalt. These, as we all know, are especially dangerous, even for the most carefully driven animal, in wet or frosty weather. Our error hitherto has consisted in making such roadways with too little regard for any other considerations than smoothness and durability. Our modern paving system, indeed, is too useful to be dispensed with, but its dangerous quality can fortunately be got rid of, and sand or gravel spread upon the road surface would provide an excellent means to this end. Of these materials, both of which are already in frequent use, it may b doubted which is best adapted to the purpose. The former, if sufficiently coarse and abundant, will probably be found the more useful, since it cannot, like gravel, mar a wooden roadway by the impress of its particles. Ash, as being less miscible with the street mire, while not of pebble hardness, would perhaps answer better than either. The adoption of some precaution of the kind is certainly a measure demanded on account of public safety as much as by any purely humanitarian reason. It is time that our local authorities paid more attention to the matter. The City of London in this respect is far ahead of that portion of the metropolis which is generally described as "the West End."

## "THYROIDISM," GRAVES' DISEASE, AND HYSTERIA.

IN a paper read before the Société Médicale des Hôpitaux, M. Béclère[1] pointed out the relationship between "thyroidism," Graves' disease, and hysteria. He had recently treated a woman suffering from myxœdema with sheep's thyroid. She had, through a mistake at the outset of the treatment, taken as much as ninety-two grammes of thyroid gland within a period of eleven days. This excessive dose had been followed by symptoms now recognised as due to "thyroidism"—viz., tachycardia, irregularity of pulse, rise of temperature, insomnia, restlessness, polyuria, glycosuria, albuminuria, and incomplete paralysis, with sensation of heat and sweating. M. Béclère further noted an increased rate of respiration, transient tremor of arms, and exophthalmos. Hence arises the question whether these symptoms, which also characterise Basedow's (Graves') disease, may not be due in that affection to hypersecretion of the thyroid gland. It may be recalled that this was the question taken up by Professor Greenfield in his Bradshaw Lecture last year. Moreover, M. Béclère observed in the course of the treatment that the patient manifested some hysterical symptoms, such as transitory aphasia, monoplegia, and anæsthesia of the right arm; and he asks whether an excessive secretion of thyroid juice may not be one of the provocative agencies of hysteria.

## THE DIFFUSION OF SMALL-POX.

THE improvement in the condition of affairs as regards the prevalence of small-pox in the metropolis, referred to in our issue of Oct. 20th, has been fully maintained in the records of last week. The number of small-pox cases heard of during the week was only 8, whilst no deaths from the disease were registered. The deaths during the last six weeks in the metropolis amounted only to 5, whereas the number in the same length of time preceding that period was 34. At the close of last week there were but 60 small-pox patients under treatment in the hospitals of the Metropolitan Asylums Board and at Highgate, as compared with 98, 84, and 63 on the preceding three Saturdays. The continued diminution in the numbers remaining in the London institutions is very reassuring at the present time. In the provinces there are at the moment but two centres of small-pox prevalence of any import—namely, Birmingham and Liverpool. At the former place the records of last week were again unfavourable, some 40 cases being freshly heard of, and 4 deaths being registered. Smethwick also had a new outburst of the disease, upwards of half a dozen cases coming to light; and other towns in the near vicinity were not without the presence in small amount of the disease. In the case of Liverpool there was some improvement manifested, inasmuch as there were no fatal attacks, and the fresh patients amounted to only about a dozen. There was a single attack chronicled at Manchester, with two or three at Leeds, but elsewhere the news concerning

[1] Gazette Médicale, Oct. 21st, 1894.

the disease is meagre. In respect of the urban district of Willenhall, where small-pox has been rife for some months past, Mr. Percival Tildesley, writing under date the 17th inst., states that the disease has now practically disappeared from the town, there having been no fresh cases notified there since the 10th of the month. This is the more gratifying on account of there having been several attacks earlier in the month. We sincerely trust that the hopes indulged may not be dispelled by any further manifestation of the disease. In Edinburgh, where the council is under obligation to place no more cases of small-pox in the Canongate Hospital, instructions have been given for the removal of the temporary structure in Cowgate, which has been utilised for cases of that disease, and it is hoped shortly also to pull down the Queen's Park Hospital, which so far has not been used for the purpose for which it was intended, the council trusting to be able to isolate any patients needing hospital treatment in the adjacent building, thus enabling them to sell the material in an uninfected condition. Meanwhile 13 cases were under isolation, and no fewer than 7 cases arose in the second week of the present month. Dr. Littlejohn has been given a free hand in the matter of gratuitous vaccination, especially in the areas chiefly affected during the late epidemic.

## FATHER IVAN OF CRONSTADT.

FATHER IVAN, the so-called miracle-worker, who has lately been summoned to attend the Czar at Livadia, is undoubtedly the best known and most distinguished or notorious of the residents at Cronstadt. To us the absurdity of this lay attendance upon the sick potentate will be, of course, very patent; but Russia, despite her luxury, her over-refinement in many directions, and the Germanising—i.e., civilising—influences of her later rulers, is still a curiously barbaric country and thus curiously open to the influences of superstition. The fame of Father Ivan, however, does not depend alone on the marvellous "cures" with which he is credited, but is certainly in great part due to his benevolence to the poor. He has built at Cronstadt, near the Hospital for British Seamen, a house which is specially arranged for receiving the destitute and providing them with food and shelter. It contains a kitchen which is in constant use and rooms in which religious services are held. There are many more applicants for charity than the capacity of the place allows, and a small charge is made for admission. When he walks abroad Father Ivan is followed by a crowd of the poor, chiefly women, who beg from him the few kopecs necessary to ensure a meal and a night's lodging. Many, however, are attracted to him, not by hope of gain, but because they expect to derive some spiritual benefit, and they desire to kiss his hand or his priestly garments. It is a strange and weird sight, and one not easily forgotten. Some of the Cronstadt people complain loudly that Father Ivan "pauperises" the people; but there is so much poverty that there can be no doubt that in many, if not in the majority of, cases much temporary relief is received by people who have been reduced to abject misery.

## THE "INTENSE" CAT.

A WIDENING circle of admirers is loud in praise of the cat. When the secretary of the National Cat Show assures us that the animal is "intense" it is quite possible to agree with him. When he adds the suggestion that gently rubbing a cat's back may "have a beneficial effect on persons in bad health" it is scarcely safe, in view of all that is known of "suggestion" and the effects of peripheral stimulation on nervous centres, to absolutely differ from him; but when it becomes evident that he deduces the above from what "everybody who has studied cats must know," that "the animal is full of electricity," it becomes difficult to repress a more or less emphatic request to him to "stop." The electrical effect produced by rubbing a cat's back is, of course, well known; it is also well known that this is frictional electricity, or, perhaps more correctly, the electricity of contact—that it is a surface effect produced by the rubbing, that it does not point to pre-existing electricity stored in the body of the animal, and that the person who, having concluded a massage, sinks into a chair declaring that his exhaustion is consequent on the loss of "the living galvanism" which he has imparted to the patient is a charlatan. It is to be remembered that friction between any dissimilar substances always produces electricity, and in illustration of this the electrical effect sometimes produced in a dry atmosphere when the hair is combed or the body quickly divested of a flannel jersey may be instanced, or the classic experiment of rubbing a stick of sealing-wax on a rabbit's fur may be called to mind. Those who are accustomed to rely on the curative effect of stroking a cat's back may find consolation in the last-named experiment, inasmuch as it teaches them that when their "feline favourite" is no more health and strength may still be secured by gentle friction on its skin. Apart, however, from questions of electro-physiology, it is instructive to learn that the presence of white in the colour of a cat, unless the animal be whole-coloured, is a sign of weakness. It is also interesting to know that the National Cat Club encourages the production of whole-coloured cats and would in every instance have been successful in this had it not been for the disappointing obstinacy of the tortoiseshell "tom," who, it appears, resolutely declines to become a cat of another colour.

## DIPHTHERIA IN LONDON.

THE number of patients suffering from diphtheria removed to the hospitals of the Metropolitan Asylums Board last week was slightly below that of the previous week, the figures being 96 last week, as compared with 93 and 106 in the preceding two weeks. The patients remaining under treatment last Saturday numbered 521, against 496, 501, and 524 on the preceding three Saturdays, the records of the last two weeks being thus practically identical. The registered deaths, however, rose, as compared with the previous week, both in respect of actual numbers and when looked at in the light of the corrected decennial average for the particular weeks. They were 61, as against 67, 66, and 54 in the three weeks preceding. They were, moreover, 23 in excess of the corrected average of 37·7. There were, in addition to the deaths in London, 9 in the suburban borough of West Ham. As regards the mortality from diphtheria in London during recent months, it would appear that August was the month in the last quarter during which the percentage was highest. For the four weeks of July the case mortality was 21·8 per cent., the percentage for the second and fourth weeks being 25·0 and 26·0 respectively. For the five weeks of August the rate was 27·6, being over 23 in the second and over 37 in the third week of the month. In September the rate fell to 24·3, and was 24·7 for the three months. In the first fortnight of the present month the rate was 25·5 per cent. of the attacks recorded. Taking one week with another, it would thus seem that since the end of August the mortality has been maintained at a fairly steady rate of about 25 per cent. of cases.

## INFANTILE SCURVY.

DR. HENRY LING TAYLOR, in a paper recently read before the American Orthopædic Association, and reported in the *New York Medical Journal*, stated that infantile scurvy due to imperfect feeding had lately attracted considerable attention, more than seventy cases having been reported at a

recent discussion on the subject at the New York Academy of Medicine. This disease was insidious in its onset, and unless recognised might prove fatal. The symptoms, some of which might be absent in any particular case, were a dusky pallor, emaciation, peevishness, and general sensitiveness—often excessive; an exquisite tender swelling, without local heat, situated near the joints of the lower extremities, due to hæmorrhage; inability to move the lower extremities and trunk (pseudo-paralysis); spongy or bleeding gums near the teeth; and, most significant of all, rapid improvement and cure on a diet of fresh milk and orange juice. The periarticular swellings had frequently been mistaken for rheumatism, which could the more readily happen as fever might be associated with it. An infant a year old had been sent to Dr. Taylor from the South for treatment for a supposed spinal or hip affection. The child had been fed on condensed milk, and presented a spinal projection at the upper lumbar region, with rigidity, in addition to the usual symptoms. The cachexia, the spongy and bleeding gums, the powerlessness of the legs, the exquisite sensitiveness, and the existence of a swelling on the right ankle made the diagnosis clear. All the symptoms disappeared in less than three weeks after the use of Pasteurised milk and orange juice. As other cases had been mistaken for hip disease, osteitis or sarcoma of the knee, and infantile paralysis it was particularly needful for practitioners to bear in mind the possibility of scurvy when diagnosing infantile joint and paralytic affections.

## "ROMAN OCULIST SEALS."

AN important work of reference for all students of ancient medicine has just been completed by the publication in the *Revue Archéologique* of the last of a series of articles by M. E. Esperandieu. In this "Recueil des Cachets d'Oculistes Romains" M. Esperandieu has by patient research presented a complete corpus of all known specimens of these curious relics of antiquity and their interesting inscriptions, even including some texts upon vases of a similar character to the sentences engraved upon the seals. Some forty years ago Simpson published a number of oculists' seals in the *Monthly Journal of Medical Science*, but since that time numerous discoveries have greatly augmented the number of specimens in public and private collections, so much so that M. Esperandieu gives copies of no less than 193 seals alone. His work is rendered the more valuable because, in addition to facsimiles of the inscriptions, he adds amplification of their much contracted texts and transcriptions into readable Latin. Perhaps the most important portion of his work is in the elaborate table at the end, summing up all the results of his researches by giving a list of titles of all the ointments and lotions, with a concordance of references to them as given in the chief Greek and Roman medical authors, such as in Actius' "Tetrabiblos," Celsus' "De Re Medica," Nicolas Myrepsus' "De Collyriis," and Scribonius Largus' "De Compositione Medicamentorum," Marcellus' "De Medicamentis," and Galen's twelfth volume. Notwithstanding, however, all his collation of ancient medical treatises, some collyres still remain unidentified, such, for instance, as "Amathystinum," "Amimetum," "Crocodes Dyamiseos," "Crocodes-regium-terpunctum," "Palladium," "Pelagium," "Thalasseros Delacrimatorium," and finally "Divinum," from whose name but little can be surmised as to its nature. Perhaps some of our readers interested in such matters may be able to suggest the true constituents of some of these forgotten remedies.

## DAMAGES FOR SUPPLYING ADULTERATED MILK.

AN important case to milk-dealers and dairy farmers was tried in the Wigan County-court last week before his Honour Judge Jones. Thomas Richardson, a milk-dealer, brought an action against Geo. Nicholas, farmer, for the recovery of £50 damages in consequence of the defendant having committed a breach of warranty and supplied the plaintiff with impure or adulterated milk. On May 10th the borough justices fined the plaintiff for selling milk adulterated, according to the analysis of the borough analyst, with 10 per cent. of sewage water. The natural result of the case, as stated by plaintiff's solicitor, was that his sales fell off and his business dwindled and shrunk day by day. The defendant had admitted that his daughter had added some water to the milk before it was given to the plaintiff. He was willing to make compensation provided the plaintiff would continue to receive milk from him as usual, for there was a written undertaking given by the defendant to the plaintiff to supply him for twelve months with so much milk each day, and guaranteeing that the milk should be pure. For the defence it was stated there could only be a question as to damages. There was a counter-claim. The contract between the parties was to the effect that the defendant was to supply the plaintiff with pure milk twice a day, at 7 A.M. and 5 P.M., the quantity not to fall below four dozen quarts per day, and the agreement was to be in force until next March. The defendant's counsel submitted as a point of law that if, because of the negligence, or even fraud, of defendant's servant, one of these instalments of milk was not up to the proper quality the plaintiff was not entitled to put an end to the contract. After further arguments his Honour found for the plaintiff, awarding £50 damages; and, looking at the fact that the law imposed upon the plaintiff the liability to continue taking milk from the defendant, notwithstanding the contract of the latter, he thought he was clearly justified in saying that the plaintiff was entitled to recover the full amount of his claim. On the other hand, the law empowered the defendant to enforce his counter-claim for breach of contract, and this disclosed a loss of £3 5*s.*, which he should allow the defendant.

## MR. PASSMORE EDWARDS AND CERTAIN CRITICS OF MEDICINE.

OF philanthropists, some do good while they live and some defer their beneficence till it can cause no serious curtailment of their own luxuries. Conspicuous amongst the former is Mr. Passmore Edwards, whose almost weekly gifts to good objects serve as a most excellent example to other rich men. No kind of good institution escapes the favour of Mr. Passmore Edwards, from a cottage hospital to a public library. Even some of the great metropolitan hospitals, if we remember rightly, have not been without his help and his favour. Curiously enough, however, Mr. Passmore Edwards appears to permit newspapers with which he is supposed to be proprietorially connected, to indulge in very gross and unfriendly libels on the profession of medicine and those great institutions, the general hospitals, which have done so much to develop its fame and its usefulness. We will only give one specimen from the *Weekly Times and Echo* of last week: "Jessie.—Take your dumb boy out of the hospital, and rear by advice given 'Four.' Do not have anything to do with hospitals: as a rule they are large experiment houses; thousands are killed in them yearly. Operations are done for experience or for the sake of being reported in the medical papers, the after-condition of the patient not often being thought of." We shall not insult Mr. Passmore Edwards by supposing that he thinks this a fair or a legitimate opinion of hospitals and their work. But if it be true that he is a proprietor of this newspaper he tacitly allows it, and must be held responsible for it and for all such morbid and eccentric views of medicine as find expression in any papers of which he is a proprietor. Mr. Passmore Edwards' philanthropy is now a public question, and we are concerned that it should not be discredited by any want of that broad intelligence which recognises in medicine and in public hospitals the very finest outcome of civilisation, or

by any sympathy with those who have detached themselves from the great lines of medical science and progress.

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AT the last meeting of the Edinburgh School Board it was decided by the casting vote of the chairman that children should not be allowed to be trained for the Christmas pantomimes. Permission was advocated by the two lady members of the Board, and it was pointed out how well the children were cared for by the theatre managers, and that their employment in this capacity was less deteriorating than selling newspapers in the streets. Last year children were brought from Manchester for the purpose, and this it is understood is an infringement of the Prevention of Cruelty to Children Act, 1894, so that Miss Stevenson gave notice that she would move to have it considered what steps should be taken to put in force the provisions of the Act in cases where children are employed in any place of amusement in Edinburgh without the licence of the Board.

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WE note with interest that at the ordinary meeting of the managers of the Metropolitan Asylums District to be held at the County Hall of the London County Council to-day (Saturday) a motion will be brought forward by Mr. S. Osborn, F.R.C.S., to the following effect: "That the Metropolitan Asylums Board express their willingness to take over the lunatic asylums at present under the control of the London County Council, in order that the care of both the lunatics and imbeciles of London may be under one authority."

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IT is reported that there is a considerable prevalence of enteric fever at Newport, in the Isle of Wight, and that the diffusion of the disease is due to past neglect and to present want of systematic action on the part of the sanitary authority. Public petitions have been sent to the Local Government Board to intervene; but so far as we can learn the complaints addressed to the central authority relate more to schemes of sewerage and drainage than to the immediate fever emergency.

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WE have received the returns from all the metropolitan medical schools and eight of the principal provincial medical schools relating to the entry of new students and the numbers of old students upon the rolls of the different institutions. We propose to comment upon the figures thus brought to our notice next week.

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WE understand that at the meeting of the British Medical Association which is to be held in London in August, 1895, the address in Medicine will be delivered by Sir William Broadbent, that in Surgery by Mr. Arthur E. Durham, and that in Physiology by Professor Schäfer, F.R.S.

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WE are informed that Lord Cadogan has resigned the office of President of the Chelsea Hospital for Women.

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THE next meeting of the General Medical Council has been summoned for Tuesday, Nov. 27th.

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FOOTBALL CASUALTIES.—On Saturday last, at the Hammersmith Football Club Ground, while playing in the West London Schools League match between the Sherwood-road and Ellerslie road Board Schools, a boy aged twelve years dislocated his left elbow, and was removed to the West London Hospital.—On the same day a Bowling Old Lane half-back, in a match against Goole, sustained a fracture of the right leg and was taken to the Bradford Infirmary.

# Pharmacology and Therapeutics.

### NITRATE OF SILVER IN PHTHISIS.

WE have received from Dr. Richard Neale the following communication with regard to a note dealing with the use of nitrate of silver in the treatment of phthisis:—"At page 755 of your journal you refer to Dr. Crocq's treatment of phthisis by nitrate of silver. It may be interesting to know what Mr. P. A. Brady thought of this remedy nearly forty years ago. Writing of Dr. Churchill's then secret remedy, he says:[1] 'I have found that nitrate of silver is an absolute specific for phthisis. Of 100 cases 90 will recover under its use, even if the disease be advanced. My dose is a quarter to one-sixth of a grain with three grains of Dover's powder three times a day.' I much regret to find Mr. Brady is not spared to us now so that we could learn his subsequent experience."

### PARALYSIS FOLLOWING STRYCHNIA POISONING.

In the current number of the *Birmingham Medical Review* Dr. Perry records an interesting case, more particularly as regards the condition which was the immediate cause of death. The patient was a strongly built man aged twenty-five, who shortly before admission had taken two threepenny packets of vermin-killer in some beer. General spasms were occurring every few minutes. They were excited by the least touch, but were not violent in character. The stomach was at once washed out and tannic acid administered. Ten grains of chloral hydrate were also given hypodermically, and within five hours of the taking of the poison all spasm had passed away and the patient was able to swallow. On the following morning the urine was drawn off, and was found to contain albumen and blood. There was also aching pain in the lumbar region, and vomiting, which had commenced during the night, was still present. Hiccough also set in. Four days after admission the patient complained of loss of power in the lower limbs. They had been weak the night before. This weakness increased, and by midday there was complete loss of power affecting the upper and lower limbs and the intercostal muscles. The diaphragm continued to act well. Rhonchi and râles were audible generally over both lungs. The heart sounds were normal. The knee-jerks and plantar reflexes were both absent; faradaic reaction was slight in the leg muscles, more remarked in the thighs, and well marked in the muscles of the trunk, arm, and forearm. There was no paralysis of facial or ocular muscles or of the soft palate, and no anæsthesia. The patient became gradually worse, the dyspnœa increasing rapidly, and death finally took place from asphyxia with great dyspnœa and cyanosis. At the necropsy the general signs of death by asphyxia were found. The kidneys also were deeply injected, but showed no signs of chronic inflammation. The spinal cord is said to have been normal. The question which is raised in the paper is as to the cause of paralysis, Was it a result of the strychnia or was it secondary to the renal condition? We should think it very unlikely to be the latter, and if it was due to the former it is of great interest on account of the close resemblance it would bear to Landry's paralysis, which is probably the result of some toxic substance. The peripheral nerves do not seem to have been examined. It would have been interesting to know what their condition was.

### TOLYPYRIN.

Tolypirin or tolysin, which is, chemically speaking, tolyl-dimethyl-pyrazolon, and therefore closely allied to antipyrin, occurs in the form of colourless crystals of an intensely bitter taste, soluble in water and alcohol, the aqueous solution striking red with perchloride of iron and green with sulphuric acid. It has been used clinically by several German and Hungarian physicians. Guttmann[2] gave it in fifteen grain doses in typhoid fever and pneumonia and found that it lowered the temperature without producing any ill-effects, even though in one case of pneumonia eight doses were given with only hourly intervals. In rheumatic fever he gave sixty grains during the twenty-four hours with good results. As an anti-neuralgic it did not appear

[1] Medical Times and Gazette, June, 1857, p. 658.
[2] Berliner Klinische Wochenschrift, No. 11, 1893.

to be so successful as antipyrin, which relieved pain in some cases where tolypyrin had failed. According to some recent researches carried out by Dr. von zur Mühlen[3] at the request of Professor Kobert of Dorpat, the main difference between antipyrin and tolypyrin is that, while the former is a protoplasm poison, destroying the irritability of muscle when injected into it, and thus rapidly, when in large doses, arresting the heart, tolypyrin does not act in this way, but paralyses the central nervous system, for when applied to an isolated frog's heart it had no effect upon it. In his clinical observations he was able to show that tolypyrin was valuable in acute rheumatism and typhoid fever, and, indeed, confirmed Guttmann's previous account of it. He also experimented on orthotolypyrin, an isomeric substance, which appeared to have much the same physiological and therapeutical properties, but to a less marked degree.

TURPENTINE IN INCONTINENCE OF URINE.

The unpleasant smell emitted by persons suffering from incontinence of urine can be conveniently covered, according to Dr. Emminghaus,[4] by means of ten-drop doses of turpentine administered in milk or water three times a day. This converts the smell of stale urine into an odour resembling that of violets, as is well known to persons who have taken turpentine. The remedy is perfectly harmless in most cases, and has been given by Professor Emminghaus for many weeks at a time without any inconvenience. It is, however, contra-indicated in ulcer of the stomach, gastric catarrh, and nephritis, and also in some persons in whom turpentine tends to upset the digestive functions.

LACTATE OF STRONTIUM IN BRIGHT'S DISEASE.

According to Dr. Ried[5] the lactate of strontium, which is certainly an excellent diuretic, is beneficial in a large proportion of cases of Bright's disease, at all events when no sclerosis of the kidney has commenced. It should not be given in powder, as it is liable to provoke sickness; but when dissolved in the proportion of one to six parts of water three or four tablespoonfuls can be taken per diem without unpleasant effects. Its diuretic action has induced Dr. Ried to believe that the lactate of strontium may be advantageously used instead of salicylates in the treatment of pleuritic effusions.

## THE REPORT OF THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND TO THE FELLOWS AND MEMBERS.

THE report of the Council of the Royal College of Surgeons of England to the Fellows and Members is more than usually interesting, and exhibits a decided improvement both in form and substance over the reports of previous years. The contents are arranged under the following twenty-four headings—viz., Committee of Management, Gresham University, Annual Meeting of Fellows and Members, Periodical Meetings of Fellows, Meeting of Members, Proposed Alteration of By-laws, Misconduct of Fellows and Members, Walker Prize, John Tomes Prize, Jacksonian Prize, Jenks Memorial Scholarships, College Dinners, Alteration of Conditions of Hunterian Trust, the Laboratories on the Embankment, Finance, Finances of Combined Board, Elections, Deaths, Museum, Library, Lectures, and in an appendix Returns of the Results of Professional Examinations, Statement of Receipts and Expenditure, and Obituary. The first eighteen headings and the matter following them comprise what is called in the Calendar the Secretary's report. Section 19 of the report, headed "Museum," is identical with the Conservator's report in the Calendar. Section 20, headed "Library," is an amplified portion of Mr. Bailey's statement in the Calendar. Section 21 headed "Lectures," contains abstracts, more or less brief, of the lectures delivered in the theatre during the past collegiate year. These abstracts have been drawn up specially for the report by the lecturers themselves, and there is nothing in the Calendar to correspond with them. Of the matter placed in the appendix the returns of the results of the several examinations and the statement of receipts and expenditure are identical with those published in the Calendar; whilst the obituary, which contains a list of 31 Fellows (11 by examination) and 313 Members of the College, is not repeated from the Calendar. Our article on the Calendar of the Royal College of Surgeons of England, published in THE LANCET of the 6th inst., contains a summary of a great deal of the information embodied in the report, more especially in regard to the present numbers of the various orders of the holders of diplomas from the College, the results of examinations, the particulars concerning the receipts and expenditure, the pathological work in connexion with the museum, and the additions to the College library. Here we propose to touch more particularly upon the work done by the Council and its committees during the past collegiate year.

Taking the subjects in the order adopted in the report, we notice that there has been some skirmishing between the Examination Committee of the General Medical Council, as well as the Council itself, and the Committee of Management of the English Royal Colleges in reference to the division of the subjects of the Final Examination, the preparation of lists of medical practitioners to be recognised as possessing opportunities for imparting practical knowledge to students during six months of the fifth year of study under the new regulations, and as to the recognition of the study of physics, chemistry, biology, and pharmacy previous to registration. In these skirmishes the Committee of Management appears to us upon the whole to have gained the advantage. With regard to the comminution, as it may be termed, of the Final Examination, the Committee of Management of the Scottish Conjoint Board (in the observations which the General Medical Council directed to be forwarded to each College) deprecated the present system of allowing students to come up for examination in any one division of the Final Examination or in any one subject of a division, and ascribed the system as having been forced upon them in self-defence and owing to its adoption by the London Colleges. Whatever justice there may be in this complaint, it is scarcely opportune to indulge in it at a time when the regulations for the four years curriculum are gradually becoming obsolete. The protest against men "worming their way to a licence by a most reprehensible system of cramming single subjects" would have come with more force from a body which had not touched "the accursed thing," or, having touched it, had not been obliged to admit that they had done so with their eyes open to the error that they were committing.

The recommendation of the General Medical Council that the medical authorities should prepare lists of medical practitioners for recognition as possessing opportunities of imparting practical knowledge to students during six months of the fifth year of medical study was met by the Committee of Management with the simple statement that such a course is unnecessary, seeing that the new regulations of the Board, dated Jan. 1st, 1892, do not recognise time spent with a general practitioner as part of the five years curriculum. In reply to the resolution of the General Medical Council calling the attention of the Conjoint Board in England &c. to the regulations, by which the study of physics, chemistry, biology, and pharmacy previously to registration is recognised, the Committee of Management points out that the General Medical Council has only recommended that such subjects should be contained in every course of professional study and examination, and that this recommendation is virtually fulfilled; that it would be a hardship to force students desirous of studying the subjects in recognised science schools, and to pass in them before entering at a medical school, to adopt another course and curtail the time which they desire to devote to professional subjects; that the plan of the Colleges results in students devoting a longer time to strictly professional study, and is therefore superior to the regulations of the General Medical Council, which permit one year of the five to be spent in the study of chemistry, physics, and biology; and, finally, that "the Royal Colleges have always under their Charters, both before and since the passing of the Medical Act of 1858, laid down in detail the conditions on which they will admit candidates to their examination. They are not aware of any statute relieving them of this obligation, which is as inseparable from that of granting a diploma as is the holding of examinations, and in no way less important." A declaration of independence from the English Royal Colleges which is the result

[3] Allgemeine Medicinische Central-Zeitung, No. 63, 1894.
[4] La Semaine Médicale, 22 Août, 1894.
[5] Centralblatt für d. gesammte Therapie, June, 1894, quoted Nouveaux Remèdes, Sept. 24th, 1894.

of more than fulfilling the requirements or recommendations of the General Medical Council can scarcely be met by an appeal to the Privy Council.

The results of the separate meetings of Fellows and Members called by the Council to consider the report of the Gresham University Commission, at which meetings resolutions were passed favourable to the scheme, show that the Council of the College is gaining, instead of losing, both strength and dignity by submitting subjects to the consideration of the Fellows and Members before in place of after the Council itself, has expressed its opinion upon them. Moreover, this course tends to promote a more harmonious feeling between the Council and the constituency, whilst it in no way hinders the Council from pursuing the course which it feels to be best for the welfare of the College.

At the annual meeting of Fellows and Members last year it is curious to observe that the Fellows outnumbered the Members. At this meeting a resolution intended to obviate the very real danger of abolition of the annual meeting of Fellows and Members was passed. No response was offered by the Council to this resolution, but that it has had its effect is shown by the fact that the Council has recently passed regulations for the conduct of meetings of Fellows and Members which provide for the annual meeting in November and for a report from the Council. The report for this year contains the regulations both for the meetings of Fellows and for the meetings of Members which have been drawn up by committees of the Council during the year and passed by the Council, and the report next year will doubtless also contain the regulations for the meetings of Fellows and Members. We need not comment again here on the proceedings at the meeting of Fellows on July 5th, nor is it necessary to say more upon the proposed alterations in Section 4 of the By-laws relating to the issue and receipt of voting papers at the election of Members of the Council; but with regard to the proposed enlargement of the scope of Section 16, dealing with cases of misconduct of Fellows and Members, we trust that a resolution will be passed by the meeting on Nov. 1st expressing cordial approval of the suggested amendment. The great need for it is shown in Section 7 of the Report, which runs as follows:—

"During the past year the attention of the Council has been called to the conduct of two Fellows and seventeen Members. In the case of the two Fellows and ten of the Members the Council, having carefully investigated the circumstances connected with each case, and having duly considered the explanations offered respecting the proceedings to which exception was taken, decided to take no action under the by-laws. Two Members have been removed from the College lists, and two whose proceedings will be further considered by the Council have been called upon to show cause why they should not be removed from being Members of the College. In the case of three other Members of the College the Council regret they were unable to take action under the present by-laws, although the General Medical Council, having adjudged the conduct of these Members disgraceful, had removed their names from the Medical Register."

This is a condition of things which ought not to be allowed any longer to continue, and the Members of the College are specially interested in its cessation at the earliest possible date.

The report contains the regulations for no less than three fresh prizes which have been founded during the year. There is the quinquennial Walker Prize of £100, instituted by the munificence of Mr. Charles Clement Walker of Lillesball Old Hall, near Newport, Salop, for encouraging the investigation of the pathology and therapeutics of cancer, and destined to be given for the best work in advancing the knowledge of these subjects done, either partially or wholly, within the five years preceding the year in which the prize shall be awarded. There is the triennial John Tomes Prize, the interest of a sum of about £310 accruing during the triennial period, to be awarded for original or other scientific work on the subjects of dental surgery and pathology, dental anatomy and physiology (including histology), or dental mechanics. For the funds of these prizes the Council of the College are trustees, and the prizes will be awarded on the recommendation of committees at the quarterly councils in April following the expiration of the respective quinquennial or triennial periods. Then there are the Jenks Memorial Scholarships for students at the medical schools coming from Epsom College, and, failing Epsom College, from public schools recognised by the Royal Colleges in rotation.

The report records that the consent of the Lords of the Treasury has been obtained to the alteration of Clause 2 of the Conditions of the Hunterian Trust proposed by the Council and approved by the trustees of the collection, so that henceforth the course of lectures on Comparative Anatomy and other subjects, illustrated by preparations from the museum, to be given by Fellows or Members of the College will be "not less than twelve" instead of "not less than twenty-four."

Scientific work at the College and in the laboratories on the Embankment proceeds with undiminished zeal. During the past year nine new applications for permission to work in the laboratories have been received and approved by the Committee, and on June 8th the number of those working or entitled to work in the laboratories was twelve. Some important investigations on a variety of maladies have been pursued, and the list of these and of the monographs and papers already published is a most creditable record.

The financial report of the Council shows that the anticipations of the Finance Committee last year that, with proper care and without undue parsimony, it should be possible to set apart £2000 for an addition to the investments of the College have so far been realised, there being a clear profit of £2125 on the year's working. This, however, has resulted entirely from a reduction in the expenditure amounting to £2327 compared with 1893, and mainly from a reduction of the extraordinary expenditure from £2109 to £494. In 1893 £1318 were expended on drainage, and £415 on furniture and fittings. The expenditure at the Examination Hall has been £364 less, on the laboratories £163 less, and on the working of the College £100 less. Had the income of the College been maintained, the surplus would have amounted to more than £3000, but unfortunately there is a decrease of income to the extent of £931. The failure of the Manchester, Sheffield and Lincolnshire Railway Company to pay a dividend in February on their preference stock involved a loss to the College of £267, and on the examinations for the membership there is a decrease of £1161, £576 being on the first examination, £174 on the second, and £411 on the third examination. There is also a decrease on the examination in Public Health of £57. These deficits are mitigated, to some extent, by an increase of £267 on the Fellowship and £325 on the Dental examinations. These latter examinations, however, "cannot be regarded as profitable undertakings, owing to the heavy expenses attendant upon them, and to the inability of the Council, under the present Charter and by-laws, to secure an adequate return for the expenditure involved." We have always insisted that the payments made by the Members of the College constitute the financial mainstay of the institution, and if the decline in the receipts from this source becomes continuous the financial outlook will not be satisfactory. This dependence of the College on the Members renders their total exclusion from the management of the College as unjust as it is impolitic, and we cannot doubt that this anomaly must ere long be remedied if the Members of the College will rise to the occasion and abandon their present policy of indifference and inaction. The report of the Council for 1894 gives evidence of the progress of reform. It, moreover, indicates a spirit of conciliation on the part of the Council. Let this report be met by the Members in a corresponding temper, and their cause, for which THE LANCET has so long contended, will assuredly triumph at no distant date.

## THE PAY SYSTEM AT THE GREAT NORTHERN CENTRAL HOSPITAL.

ON Friday evening, Oct. 19th, a deputation attended at the Great Northern Central Hospital, Holloway, to express their extreme disapprobation of the action of the General Committee in opening wards in the hospital for the treatment of paying patients. A petition signed by 204 medical practitioners in the north of London, and based upon the following considerations, was placed before the committee:—1. That it is at all times inexpedient for a charitable institution to engage in any business or practise any profession for the purpose of making money, and that it is especially perilous to do so at a time when the institution is in financial difficulties. 2. That it is a matter of

injustice to the subscribers to the hospital funds (the hospital having been started and continued hitherto as a charity) that others than the necessitous poor should receive the benefits of the hospital. 3. That the opening of pay wards in a public hospital is a needless interference with medical practice and with the conduct of nursing homes, and is detrimental to the interests both of the medical men in the vicinity of the hospital and also of the trained nurses already conducting nursing homes on legitimate lines, which are quite sufficient for the present needs of the district. 4. That however carefully cases for admission may be sifted by an apparently perfect clerical mechanism, it is not only probable, but almost quite certain, that the already existing abuse of hospital relief, which is a prominent feature of the Great Northern Central Hospital, will be immeasurably increased by the institution of these pay wards. 5. That the action of the House Committee places the medical and surgical staff of the hospital, while tendering their services gratuitously to the patients in these pay wards, in the unsatisfactory—if not, in medical ethics, the illegitimate—position of giving their professional work for the enrichment of a lay corporation, and of inflicting a proportionate pecuniary injury upon the medical practitioners in the neighbourhood.

Dr. MURDOCH, on behalf of the committee, welcomed the deputation, and trusted that, quite independently of the question of pay wards, they would have some interest in the institution itself.

Dr. H. J. STOKES introduced the deputation and said the petitioners had very many good reasons for the course they had taken. On the part of the deputation he thanked the General Committee for allowing them to debate the question and hoped that the matter might be brought to an amicable arrangement and settled. The late secretary had told him that the hospital would soon be inadequate for the accommodation of the ordinary class of patients, and, as a matter of experience, they were already finding it so.

Dr. J. G. GLOVER, acknowledging the kind and courteous welcome the General Committee had accorded to them, said that, so long as hospitals were restricted within the limits which in this country it has been the custom to assign to them, there was no body of men who had so much interest in their welfare as the medical profession. Stating his objections to the proposal, he said he was aware that there was a provision in the constitution of the hospital for pay wards; but that, he could only say, was a very vague one, and there was no provision for any particular application of the doctrine. Before making any change it would have been wise to have called the governors together and to have consulted the medical profession; he felt, however, that the matter had not been overlooked intentionally. One of his first objections was in the interests of the poor. The fundamental and essential idea of the hospital in England is a place for the poor, and the word "poor" had never been severely defined. For every pay patient admitted there was presumably excluded a person who could not pay. The parish of Islington was perhaps the largest in the country, and there could not be enough accommodation in this hospital. Then, again, a very invidious and undignified duty had been thrown upon the medical staff of the hospital. He held that there was no reason to call upon the staff for the gratuitous charge of patients who could afford to pay. That duty had been declined by other hospitals. Dr. Glover here referred to the adoption of pay wards at St. Thomas's Hospital, and quoted a letter from Dr. Bristowe in which that gentleman pointed out that patients who were able to pay, and who undertook to pay, for hospital treatment must of necessity have an altogether different relation to the physicians and surgeons of the hospital from those whose treatment was gratuitous. The proposal was grossly unfair to the medical profession. Hospitals were now greatly abused, and there was a disposition on the part of everybody to rush into them. It would seem as though the expression "there is no place like home" had now been changed into "there is no place like hospitals." He therefore begged the committee to reconsider the matter.

Dr. WIGHT spoke strongly against the course taken by the committee.

Dr. CRABB (secretary to the deputation) thought the system of pay wards greatly opened the door to abuse, and fully concurred in all Dr. Glover had said.

Mr. GEORGE BROWN said that the great work of hospitals was charity and that if institutions of this kind were thrown open to persons paying two or three guineas much of the income of the institution would be expended on persons who did not come under the heading of "sick poor." He suggested that the new pay wards should be reserved for the patients of local practitioners, in cases where proper nursing could not be obtained at home.

The CHAIRMAN thanked the petitioners for putting the matter before the committee so clearly and so temperately, and trusted that they would believe that the committee would come to a decision carefully considered in the cause of charity.

The deputation then withdrew.

The CHAIRMAN, on the return of the deputation, said: "When this hospital was first mooted—the amalgamation between what was then a new project and the old Great Northern Hospital—the question of pay wards was made rather a strong feature of the movement, and in the appeals that were made to the public it was distinctly stated that the hospital to be built would consist of free and pay wards. Mr. Burdett, whose opinion on hospitals is certainly worth having, was a member of the committee at that time and was very active in starting the movement. It has been remarked that the building was altered during the process of construction in order that we might have pay wards. No alteration of the sort was made. From the commencement it was intended that the greater part of the hospital should be taken up by free wards and that pay wards should bear a very small proportion indeed to the free wards. With regard to the hospital generally, and particularly the out-patients' department, we have a very careful system of registration and inquiry, because we particularly wish to protect the interests of the medical practitioners in the neighbourhood. Of five applicants who came here seeking admission two were passed; that was the first start. The other three applicants were rejected because we did not consider them suitable cases for pay wards. The pay that the patients have to make has been so based as to simply cover the expenses, and we have no idea of making a profit. In the case of St. Thomas's Hospital, alluded to by Dr. Glover, pay wards were instituted to increase the income of the hospital, but this is not our intention. As the certificate has to be signed by the medical applicant you have the remedy in your own hands, and if you knew that the patient was not a fit person I think you would be bound to refuse to sign it. We have thought, too, that you yourselves might frequently meet with cases in your ordinary practice which you would like to send to these pay wards. The safeguards which have been put upon the admission of patients are designed to prevent abuse and injury to the profession. The medical staff would have objected to attend pay patients if they were to be a source of profit to the hospital, but they look upon it in the same charitable light as they regard their attendance on the other patients in the hospital. The medical staff have strongly expressed their wish and their desire to protect the practitioners in the neighbourhood, and they would never do anything that would injure their fellow workers; on the contrary, as far as they could, they would wish to protect their interests. With regard to the question of advertising, we shall be happy to meet you on that point. We will put a stop to it. With regard to the class of patients, it is not only in the homes of the extreme poor that better nursing and better food are required. There are many who have to keep up appearances who are far more indigent than those who are usually called poor. In such cases these few pay wards that we have made are really charitable, and we would make an appeal to you to aid us in such cases. The committee feel bound, after having appealed to the public for pay wards, to try them. If the system is unsuccessful we do not feel bound to carry it on. We should feel compelled to drop the system if we thought it injurious to gentlemen who live around us. I would ask you for the present to withdraw your opposition, because we, as a committee, feel bound to give the system a trial."

Mr. BROWN pointed out the invidious position in which the signing of certificates placed the medical man, and the deputation withdrew.

The following gentlemen composed the deputation:—Dr. R. M. Beaton, Mr. George Brown, Dr. Michael J. Bulger, Dr. Crabb, Dr. J. G. Glover, Mr. Frank Godfrey, Mr. A. A. Howell, Mr. Newton Parker, Mr. P. W. Rattray, Dr. Rowntree, Mr. C. E. Scudamore, Dr. Frederick Spicer, Dr. H. J. Stokes, Dr. George Wight, and Dr. Joseph Wilson.

## EDINBURGH UNIVERSITY DEGREES IN MEDICINE FOR WOMEN.

As was stated a fortnight ago the Edinburgh University has arranged to admit women to its examinations and degrees in medicine. As some misunderstanding has arisen in connexion with this matter it is desirable to state more fully the precise state of affairs. The University has not seen its way to make arrangements for the medical education of women within its own walls, but, having been empowered by the Universities Commission to make arrangements for their education extra-murally, while at the same time admitting them to examination for their degrees, it has taken advantage of that permission in the following way. There are two medical schools for women in Edinburgh: (1) the Women's Medical College in Chamber's-street, which is under the auspices of the Scottish Association for the Medical Education of Women and is managed by a court of prominent and influential citizens and by the lecturers, who constitute a Board of Studies; and (2) the Edinburgh School of Medicine for Women in Surgeons'-square, the head of which is Dr. Sophia Jex-Blake, under whose rule the school is. As soon as the Universities Commission granted permission to the University to make extra-mural arrangements as indicated above both these schools applied for recognition as affiliated colleges or otherwise to enable their students to present themselves for examination. This the University Court has granted, but, instead of recognising only one of these schools, it has recognised both as providing a complete course of study for graduation. It is these schools only and the teachers on their respective staffs who have been recognised, the whole extra-mural school not having been thrown open to women. It is perhaps only to be expected that, with two rival schools for women, there should have been a considerable amount of intriguing in certain quarters to have a preference given to one or other school; but the university authorities have probably acted wisely in deciding to recognise both schools, so long as the standard of teaching is satisfactorily maintained, and leaving them to fight out the question of survival between themselves. The schools must apply for and receive recognition anew each year. It was the action of the Universities Commission which made such an arrangement as has been indicated possible; and which was at once taken advantage of by the Glasgow University, and this winter by the Edinburgh University.

## CHOLERA.

CURRENT NOTES, COMMENTS, AND CRITICISM.

THE latest intelligence from Russia, which is up to the 20th inst., shows that during the past week there had been 9 cases and 5 deaths from that disease in St. Petersburg. In Warsaw there were no cases and no deaths for the week ending the 13th inst.; but in the government of St. Petersburg there were 4 cases and 1 death, and in the government of Warsaw there were 28 cases and 11 deaths from Sept. 30th to the 13th inst. A few cases of cholera have also been reported from Berlin as having occurred in East and West Prussia.

Those interested in the medical history of the present epidemic of cholera may usefully refer to the report of Dr. F. W. Barry in the supplement to the twenty-second annual report of the Local Government Board, which sets forth the extent of the diffusion of cholera in 1892. It is pointed out that cholera may be regarded as having advanced from three centres: one western, commencing in the suburbs of Paris, and extending slowly in France, especially to the north-west, and invading Belgium and Holland; the other two eastern—one from Afghanistan, by way of Persia to Russian Turkistan and across the Caspian Sea through the Caucasus and European Russia, and the other, which was practically a continuation of the epidemic of 1890–91, affecting Arabia and the Somali coast of Africa.

## VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6105 births and 3405 deaths were registered during the week ending Oct. 20th. The annual rate of mortality in these towns, which had been 16·0 and 16·7 per 1000 in the preceding two weeks, further rose last week to 17·0. In London the rate was 15·9 per 1000, while it averaged 17·7 in the thirty-two provincial towns. The lowest rates in these towns were 11·9 in Plymouth and in Leicester, 12·3 in Norwich, 13·7 in Newcastle-upon-Tyne, and 14·0 in West Ham; the highest were 21·6 in Manchester, 21·9 in Halifax, 22·6 in Sunderland, 22·9 in Liverpool, and 24·3 in Burnley. The 3405 deaths included 388 which were referred to the principal zymotic diseases, against 362 and 406 in the preceding two weeks; of these, 94 resulted from diphtheria, 89 from diarrhœa, 69 from measles, 52 from scarlet fever, 42 from "fever" (principally enteric), 38 from whooping-cough, and 4 from small-pox. No fatal cases of any of these diseases occurred last week either in Plymouth or in Halifax; in the other towns they caused the lowest death-rates in Leicester, Norwich, and Birkenhead, and the highest rates in West Ham, Derby, Liverpool, Sunderland, and Gateshead. The greatest mortality from measles occurred in Sheffield, Portsmouth, Sunderland, Hull, and Gateshead; from scarlet fever in Huddersfield; from whooping-cough in Swansea and Croydon; from "fever" in Derby; and from diarrhœa in Bolton, Sunderland, and Wolverhampton. The 94 deaths from diphtheria included 61 in London, 9 in West Ham, 6 in Liverpool, 3 in Bristol, and 2 each in Cardiff and in Sheffield. Four fatal cases of small-pox were registered in Birmingham, but not one in London or in any other of the thirty-three large towns. There were 60 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, Oct. 20th, against 93, 84, and 63 at the end of the preceding three weeks; 11 new cases were admitted during the week, against 14, 11, and 8 in the preceding three weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2214, against 2084, 2145, and 2171 on the preceding three Saturdays; 261 new cases were admitted during the week, against 253 and 262 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had steadily risen in the preceding seven weeks from 123 to 241, further increased last week to 287, but were 42 below the corrected average. The causes of 60, or 1·7 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Brighton, Nottingham, Bolton, Oldham, and in nine other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Leicester, Liverpool, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased from 14·9 to 17·6 per 1000 in the preceding four weeks, declined again to 17·5 last week, but was 0·5 per 1000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 12·0 in Perth and 12·8 in Dundee to 19·6 in Edinburgh and 22·9 in Paisley. The 498 deaths in these towns included 17 which were referred to diarrhœa, 10 to diphtheria, 6 to scarlet fever, 5 to whooping-cough, 3 to measles, 2 to "fever," and 1 to small-pox. In all, 44 deaths resulted from these principal zymotic diseases, against 52 and 59 in the preceding two weeks. These 44 deaths were equal to an annual rate of 1·5 per 1000, which was 0·4 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of diarrhœa, which had been 23 and 22 in the preceding two weeks, further fell to 17 last week, of which 10 occurred in Glasgow and 4 in Leith. The deaths referred to diphtheria, which had declined from 16 to 10 in the preceding three weeks, were again 10 last week, and included 6 in Glasgow and 2 in Paisley. The fatal cases of scarlet fever, which had been 1 and 10 in the preceding two weeks, declined again to 6 last week, of which 4 occurred in Glasgow. The 5 deaths from whooping-cough corresponded with the number in each of the preceding two weeks, and were

all recorded in Glasgow, where the 2 fatal cases of "fever" also occurred. The death from small-pox was registered in Edinburgh. The deaths referred to diseases of the respiratory organs in these towns, which had been 63 and 94 in the preceding two weeks, further rose to 96 last week, but were 10 below the number in the corresponding week of last year. The causes of 32, or more than 6 per cent., of the deaths in the eight towns last week were not certified.

### HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 23·6 and 21·5 per 1000 in the preceding two weeks, further declined to 18·0 during the week ending Oct. 20th. During the past three weeks of the current quarter the death-rate in the city has averaged 21·0 per 1000, against 15·6 in London and 18·1 in Edinburgh. The 121 deaths registered in Dublin during the week under notice showed a decline of 23 from the number in the preceding week, and included 16 which were referred to the principal zymotic diseases, against 18 and 15 in the preceding two weeks; of these, 9 resulted from diarrhœa, 4 from "fever" (principally enteric), 2 from small-pox, 1 from scarlet fever, and not one either from measles, diphtheria, or whooping-cough. These 16 deaths were equal to an annual rate of 2·4 per 1000, the zymotic death-rate during the same period being 1·7 in London and 0·8 in Edinburgh. The fatal cases of diarrhœa, which had been 10 and 3 in the preceding two weeks, rose again to 9 last week. The deaths referred to different forms of "fever," which had been 2 and 7 in the preceding two weeks, declined again to 4 last week. The fatal cases of small-pox, which had been 2, 4, and 2 in the preceding three weeks, were again 2 last week. The 121 deaths registered in Dublin last week included 23 of infants under one year of age, and 26 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a marked decline from those recorded in the preceding week. Four inquest cases and 1 death from violence were registered; and 44, or rather more than a third, of the deaths occurred in public institutions. The causes of 7, or nearly 6 per cent., of the deaths in the city last week were not certified.

## THE SERVICES.

### MOVEMENTS OF THE MEDICAL STAFF.

SURGEON-MAJOR E. H. FENN, C.I.E., Coldstream Guards, succeeds to the establishment of the Brigade of Guards in the vacancy caused by the transfer of Surgeon-Major Cross, Scots Guards, to the 1st Life Guards. Brigade-Surgeon-Lieutenant-Colonel Clapp has arrived in England after a tour of service in the Mauritius. The following officers have arrived from South Africa:—Surgeon-Lieutenant-Colonel Harman, Surgeon-Captains Wright, Trewman, and Hennessy. Surgeon-Lieutenant-Colonel Stannard has embarked for service at the Cape. Surgeon-Captain R. J. C. Cottell has returned from a tour of service at Gibraltar, and Surgeon-Captain Black has arrived at that station.

### ARMY MEDICAL STAFF.

Brigade-Surgeon-Lieutenant-Colonel W. W. Tomlinson retires. Surgeon-Lieutenant-Colonel F. H. Hensman, 1st Life Guards, is placed on retired pay.

### INDIA AND THE INDIAN MEDICAL SERVICES.

The undermentioned probationers have been appointed Surgeon-Lieutenants on the Bengal Establishment:—G. Ramsay, D. W. Sutherland, W. Selby, T. A. Granger, H. J. K. Bamfield, J. W. Grant, A. H. Moorhead, W. D. Hayward, A. W. F. Russell, and W. E. Scott-Moncrieff. Surgeon-Lieutenant R. H. Maddox, M.B. (Bengal), Officiating Medical Officer, 35th Bengal Infantry, is appointed to the Medical Charge of the Bundelk and Political Agency, in addition to his military duties. Surgeon-Captain H. B. Luard, M.B. (Bengal), Medical Officer, 22nd Bengal Infantry (on special duty at Gilgit), is appointed to officiate as Agency Surgeon at Gilgit. Surgeon-Major Maunsell, A.M.S., has been transferred from general duty, Sind district, to the Medical Charge of the Station Hospital, Aden. Surgeon-Major Maconachie, has been transferred from general duty, Mhow district, to general duty, Aden district. Surgeon-Lieutenant J. R. Pearce, 22nd Regiment Madras Infantry, si appointed to the Officiating Medical Charge of the Regiment; Surgeon-Major O. E. Lloyd, V.C., A.M.S., to the Medical Charge of the Station Hospital, Bangalore; and Surgeon-Major F. P. Nichols, M.B., to the Mandalay district. The undermentioned Medical Officers having completed twelve years' full-pay service, to be Surgeon-Majors:—Surgeon-Captain W. H. Burke, M.B., and Surgeon-Captain J. Crimmin, V.C. Surgeon-Captain W. G. P. Alpin, M.D., I.M.S., is transferred from the Ghazipur Light Horse to the Oudh Light Horse. Surgeon-Major A. S. Faulkner, Agency Surgeon in Alwar, is granted furlough on medical certificate for one year. Surgeon-Major-General Rice, Surgeon-General with the Government of India, leaves Simla on Nov. 1st for a tour to Lahore and Agra. He then proceeds to Rajputana and the Central Provinces, reaching Calcutta probably about Dec. 10th. Surgeon-Colonel Pilcher on returning from leave will be appointed to the Inspector-Generalship of Civil Hospitals, North-West Provinces.—*Madras Medical Establishment:* The Queen has approved of the retirement of Surgeon-Major Joseph Hunter.—*Bengal Medical Establishment:* Her Majesty has approved of the promotion to Brigade-Surgeon-Lieutenant-Colonel of Surgeon-Lieutenant-Colonel Hugh Johnstone, M.D.

### NAVAL MEDICAL SERVICES.

The following appointments are announced:—Surgeons: Percy E. Maitland and George T. Broatch, to the *Grafton;* Norman S. Smith, to the *Benbow;* William G. Stott, B.A., M.B., to the *Philomel;* Francis H. A. Clayton, M.B., to the *Thrush;* Samuel W. Johnson, to the *Melita;* Charles J. S. Kelsall, to Walmer Depôt; and Hugh W. Macnamara, to Gibraltar Hospital.

### ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Captain Benjamin O. Barnard, M.B., having vacated his appointment in the Royal Alderney Artillery Militia, ceases to be an officer of the Army Medical Reserve of Officers. Surgeon-Captain Arthur N. Barnley, having resigned his Volunteer appointment, ceases to be an officer of the Army Medical Reserve of Officers.

### VOLUNTEER CORPS.

*Light Horse:* 1st Fifeshire: Alistair Grant-Macdonald, M.B., to be Surgeon-Lieutenant. *Rifle:* 2nd Volunteer Battalion, the Worcestershire Regiment: Edwin Morton, M.D., to be Surgeon-Lieutenant. 1st Volunteer Battalion, the Sherwood Forresters (Derbyshire Regiment): Surgeon-Lieutenant A. B. Chambers, M.D., to be Surgeon-Captain. The Queen's Rifle Volunteer Brigade, the Royal Scots (Lothian Regiment): Brigade-Surgeon-Lieutenant-Colonel Sir Douglas Maclagan, Knt., M.D., retires, with permission to retain his rank and to continue to wear the uniform of the Corps on his retirement, vacating at the same time his appointment in the Forth Volunteer Infantry Brigade.

### VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

The following Medical Officers of the Yeomanry and Volunteers, who have been under instruction from the Staff of the School, have recently passed the official proficiency examination for Medical Officers conducted by the Army Medical Staff at the headquarters of regimental and other districts:—

#### YEOMANRY CAVALRY.

Surgeon-Captain J. D. Willoughby S. Notts Hussars.

#### VOLUNTEERS.

Surgeon-Captains: W. L. Morgan, M.A., 1st Oxford University R.V.; H. Baldwin, 18th Middlesex R.V.; W. Abbot Anderson, M.B., 3rd London R.V.; L. Gerald Dillon, M.D., 2nd Durham Vol. Art; T. McFoley, 1st East Riding of Yorkshire Vol. Art.; E. S. Norris, M.B., Eton College R.V.; C. G. Grant, 24th Middlesex R.V.; J. Telfer Thomas, 1st V.B. Duke of Cornwall's Light Infantry; J. W. Eakin, M.D., Naparima Mounted Rifles, Trinidad; J. V. Rutherford, M.B., 1st Northumberland Volunteer Artillery. Surgeon-Lieutenants: C. J. Arkle, M.D., 14th Middlesex (Inns of Court) R.V.; S. Monckton Copeman, M.A., M.D., 2nd London R.V.; A. H. Croucher, M.D., 1st Sussex Vol. R.E.; J. P. Atkinson, M.D., and E. H. Douty, M.A., M.B., 3rd (Cambridgeshire) V.B. Suffolk Regiment; M. M. Thomas, 2nd Gloucestershire Vol. R.E.; R. Fletcher, 22nd Middlesex R.V.; A. Eddoes, M.D., 24th Middlesex R.V.; J. Hamel, M.B., 1st V.B. York and Lancaster Regiment; Campbell Boyd, 3rd V.B. the "Queen's" Royal West Surrey Regiment; R. Dudfield, M.B., D.P.H., 26th Middlesex (Cyclists) R.V.; J. O. Sankey,

2nd V.B. Oxfordshire Light Infantry; C. Lawrie, M.D., 1st Duke of Cornwall's Light Infantry; H. Maclean, 2nd V.B. Derbyshire Regiment; E. M. Callender, M.D., 12th Middlesex (Civil Service) R.V.; J. W. T. Gilbert, 1st City of London Volunteer Artillery; R. Humphreys, M.B., 6th Lancashire Volunteer Artillery; C. F. Glinn, 4th V.B. Devonshire Regiment; A. W. Wigmore, 19th Middlesex R.V.; W. Sandeman, M.B., 2nd V.B. the Highland Light Infantry; J. P. Simpson, M.D., 1st Tower Hamlets Rifle Volunteer Brigade; J. Anderson, M.B., 8th V.B. the Royal Scots Lothian Regiment; W. A. Wetwan, 2nd V.B. the East Yorkshire Regiment.

### DEATHS IN THE SERVICES.

Staff-Surgeon Hugh Tod Spalding Beveridge, R.N. (retired), died at Paignton on the 13th inst. He joined the Navy in 1839, was promoted to the rank of staff-surgeon in 1844, and retired in 1863. He was the author of "Results of Practical Observation of Asiatic Cholera in Various Parts of the World."

The insanitary state of the Solon, a hill station on the Simla road, having been reported upon by the military authorities, measures are being taken to improve its condition in this respect.

The *Times* states that it has been decided that an officer who has been removed from full pay on account of medical unfitness caused by military duty may, when reported fit for service, be restored to his regiment on full pay as a supernumerary.

The Greenwich Hospital Pension of £50 a year for Staff and Fleet-Surgeons, rendered vacant by the death of Fleet-Surgeon Richard C. Nutt, has been awarded to Deputy-Inspector-General D. Finucane, M.D.

Surgeon-Captain O'Callaghan has been appointed to the Adjutancy of the Volunteer Medical Staff Corps, in succession to Surgeon-Captain Hayes, whose term of service has expired.

# Correspondence.

"Audi alteram partem."

## THE POSITION OF THE THEORY OF EVOLUTION.

*To the Editors of* THE LANCET.

SIRS,—I would ask the indulgence of your pages that I may draw attention to an important subject—the present position of the theory of evolution, and the question of its credibility—matters not unworthy, I submit, of the consideration of our profession. By many scientists it would be thought presumptuous to speak thus of this theory, which is spoken of by the majority as "Evolution," with a big E, and its credibility not considered a "question" at all. However, we still live in a free country, and even we of the rank and file may hope to escape the penalty of free speech at the hands of "Science in excelsis" which a few hundred years ago was visited on the pioneers of science themselves by "Theology in excelsis." We are hearing ominous sounds at associations of science and elsewhere of a new form of heresy, charged, perhaps playfully, against non-believers in the theory of evolution. But for the present let us take heart of grace, and dwell on a few salient points. 1. Do we need to concern ourselves as to the truth of this theory? I think there is urgent need for us to do so. One must see that, from year to year, very little attention is paid in medical journals to the truth or otherwise of this theory by the busy brains that are so marvellously forwarding medicine and surgery, and doubtless they have ample occupation without doing so. It is to be feared that the very practical nature of our work and the lofty tone assumed as to this theory by many leaders in science keep our minds too often from thinking it out for ourselves and calculating some of its chaotic and revolutionary results. Apart from scientific works, it is reserved for magazines of general literature and accomplished thinkers outside the charmed circle of science, like Lord Salisbury, to criticise occasionally this theory, though a recent leading article in THE LANCET[1] also in a valuable and fair manner sounded a needed note of caution.

[1] THE LANCET, Aug. 11th, 1894.

But what, it will be asked, have the medical profession to do with this theory, which, I would maintain, is not only the question of the day but of this century in the region of thought? Much every way. One definite point connected with this theory intimately affects our profession. It is the increasing knowledge of the hereditary nature, and the deeper analysis of many crimes and criminal lives, which may dangerously lead us to teach that crime in many cases (and if in many, why not in all?) is the evolved product of inherited tendencies and environments. And thus we arrive easily at the ideal of Law represented by the necessary by-laws of some railway company. We may even expect to hear it taught that there is no such thing as "sane wickedness." These specious ideas of crime are not unknown to Anarchists, as in the particular case of Vaillant, who claimed, however falsely, to be the logical follower of the school of Darwin and Spencer. Members of the legal profession have an awkward habit of availing themselves, when they need them, of the publicly expressed opinions of leading medical men, without being at much pains to ascertain whether or not these rest on good proof. Again, as practitioners we are daily fighting against the results in individuals or communities of their environments, and of that personal and ancestral "physiological unrighteousness" of which the late Sir Andrew Clark was wont to speak. We seek to minimise, if haply we might destroy certain "friends of the human race" of which a professor spoke highly in recent lectures. In our measure we are continually repressing epidemics, keeping alive the invalids and wrecks of humanity, helping to save sickly and diseased children. I could tell of a mother of many children, herself no longer young, most active in good work at home and abroad, long ago delivered by the wise advice of a physician from severe hysteria, years afterwards cured of tubercle and glycosuria, and a few years ago operated upon successfully for carcinoma. And this useful life, not at all of the "fittest," "survives" to-day to the great profit of her large circle. In such and lesser "survivals" we rejoice. There is even for us a worthy duty to be performed to the race yet unborn. We may hope with much benefit to teach those who are to be fathers and mothers, to face honestly and deal courageously with their family and personal vices of health and habits, that they may, by an ever-increasing knowledge of hygiene, reverse the tide of "evolution" that was setting in for the extinction of their stock. Now, these considerations, and many more, remind us that, if there be one calling upon the face of this earth which all admit to be unimpeachable in its efforts for the individual or the race, and which is year by year growing in the respect of the civilised world, it is the one in which we spend our days; but the more this beneficent character of our work is sustained, by so much the more do we become the greatest offenders against the evolution of our race. But if in our work we looked to the leaders in science for any guidance or sanction, other than the obvious considerations of our own maintenance and advancement, we should look in vain. 2. But, Sirs, this phantom theory meets men of various classes at every turn of the march of civilisation. It is receiving a form of sanction very dangerous by the constant reiteration of its name and claims in the ears of those who know little about it. Is there a grain of truth in this theory? If not, shall judgment go by default? Should we be silent when men of science, whose authority in their own department none question, are writing and speaking of this theory as if it rested on as good proof as the law of gravitation? If we hold our peace too long we may wake up some day to find this theory incorporated into the primers of our National schools and taught as a dogma to the rising generation. It may become necessary in a neighbouring enlightened country to teach it in lieu of any other theory of the universe, the great principle of design in creation being excluded "by order." But hardly so yet, in this hard-headed, slowly moving nation, which because of those qualities is apt to say "Vestigia nulla retrorsum." The danger of a gradual unsettling of the sanctions of morality may not be immediate, and so much the better; but if there be a danger let us look to it calmly before the passions of men are roused on the subject. The teaching of science on this theory savours too strongly of the study and transcendental specialism to justify the medical profession, the physicists, the geologists, the theologians, the archæologists, philologists, and historians in remaining dumb when the oracles of biology speak, experts, however great they be, prepared to formulate a theory for the whole universe. The

medical profession, as I have said, is largely silent as to this theory, the physicists work on and occasionally pause to ask some awkward questions, the geologists are its damaging and half-hearted allies, the theologians prepared to swallow whatever is presented to them by the scientists of the day, and the opposition of the archæologists, with their records on stone and in writing of some fifty centuries, and of the philologists and historians slowly and steadily growing. 3. How stands this theory to-day amongst its greatest exponents? How do Darwin, A. R. Wallace, Spencer, Haeckel, Romanes, Weissmann, the popular author of "The Ascent of Man," and, lastly, Professor Huxley stand towards one another? In 1883, at Cambridge, Professor Huxley, in words which should be graven in the rock, said that "from the time when he first read Charles Darwin's 'Origin of Species,' now some twenty-five years ago, his mind had fixed itself upon the tenth chapter of that book, which treated of the succession of forms in geological times, for it appeared to him that, if the doctrine of evolution was correct, the facts of palæontology, as soon as they became known, must bear it out and verify it in every particular." How is this condition being fulfilled, with eleven years of investigation added? But poorly, it would seem. Ten years after that date Professor Huxley delivered the Romanes Lecture for 1893, and called it "Evolution and Ethics." The title, with its significant conjunction, perhaps unconsciously chosen, could not have been better adapted to express the keynote of the whole lecture—that evolution and ethics are two separate matters, and here stands Professor Huxley to prove stoutly, if somewhat sadly, that the two have very little to do with one another. He goes very near to supposing a new force in the universe other than evolution, though he appears not to despair that all things will yet be reconciled by this theory of evolution. A few sentences from this lecture may be quoted in illustration: "For his successful progress, as far as the savage state, man has been largely indebted to those qualities which he shares with the ape and tiger; in extreme cases he does his best to put an end to the survival of the fittest of former days with axe and rope." "The optimism of our philosophers ..... prevented them from seeing that cosmic nature is no school of virtue, but the headquarters of the enemy of ethical nature." "Let us understand, once for all, that the ethical progress of society depends, not on imitating the cosmic process, still less in running away from it, but in combating it." "As the immoral sentiments have no less been evolved [than the moral sentiments] there is, so far, as much natural sanction for the one as the other. The thief and murderer follow nature as much as the philanthropist." Professor Huxley also points out that the theory of evolution had its antique forerunners in the philosophies and religion of Hindustan and in Buddhism, and among the early Greeks and their followers the Stoics. Later he says: "Modern thought is making a fresh start from the base whence the Indian and Greek philosophy set out; and, the human mind being very much what it was six and twenty centuries ago, there is no ground for wonder if it presents indications of a tendency to move along the old lines to the same results." He refrains from describing those results as seen to-day in the millions of Hindustan, that third part of the human race who embrace Buddhism, and the successors of the Greeks if they exist at all, excepting that he speaks elsewhere of the "marvellous success" of Buddhism. What kind of "evolution" and results of the early teachings of evolution have we here? As we listen to the Babel voices of science on this subject we may well demand a pause and take our soundings. Some will fairly ask, "What disproof of this theory has been offered?" Surely none such is needed. There are many indications that if this theory, which was never wanted, be steadily faced and confronted with facts from many sources, in a few more years we may witness its reverent interment at the hands of some professor of the twentieth century. For those who seek by this theory a road out of the bondage of faith there is small comfort. The object of faith alone is transferred. They will seek deliverance by a theory which was pronounced "unimaginable" by Weissmann, and which demands greater faith—nay, credulity—than any principle of design in the creation and ordering of the universe, in a small planet of which we live out our little lives.

I am, Sirs, yours faithfully,

WALTER KIDD.

Montpelier-row, Blackheath, S.E., Oct. 18th, 1894.

## "SCHOOL ATTENDANCE AND DIPHTHERIA."

*To the Editors of* THE LANCET.

SIRS,—The letter of Mr. Biddle, following on his previous one of July 28th last, will, I trust, receive the attention it so certainly deserves. In support of Mr. Biddle's contention I may perhaps be allowed to quote from a paper communicated by me to the Public Health Section of the British Medical Association at Bristol last August, and entitled "The Etiology of Diphtheria in relation to Insanitation": "Readily admitting the importance of infection by personal contagion and 'school influence,' I cannot think that this element is other than one of propagation and dissemination. Where by this agency epidemics of 'simple sore-throats' develop into outbreaks of true diphtheria marked evidences of insanitation in the school buildings or in the dwellings of the pupils attacked have invariably been noted. This of course suggests agreement with the views of Dr. Airy and Dr. Thorne as to a 'progressive development of the property of infectiveness,' to which as a clinician I cordially give adhesion; only I go further in expressing my conviction that not only are epidemics of 'simple sore-throat' almost invariably the result of insanitation, but also that their development into true diphtheria is rapid and complete in proportion to the degree of insanitation of the surroundings of the infected districts and of the individuals first attacked. The 'school influence' is naturally more pronounced with the increased virulence of the infectiveness." Accompanying my paper was a tabular abstract of all the published reports of the Local Government Board—forty-three in number—on outbreaks of diphtheria during twelve years, between 1882 and 1894. In ten of these the cause assigned by the reporter was contagion, while in others in which insanitation was the principal assigned cause dissemination by schools was also noted. In seven of the ten cases the contagion was assigned to "school influence," and all these ten cases were found to be associated with grave sanitary defects of some kind. To give but one example, the outbreak at Derry Hill, concerning which the deputed medical inspector of the Local Government Board reported, July 10th, 1893, that there was an absence of all drainage and sewerage, with a soil favourable to soakage: the water-supply was mainly from foul wells; the privies were of a primitive description, and many were in bad repair. "Diphtheria had been more or less prevalent for some years—how many years it is difficult or perhaps impossible to say." In addition, complaint was made by the inhabitants of unsavoury odour emanating from a sewage farm in the district. The inspector's opinion was that to the nuisance of neither sewage work nor unwholesome domestic conditions could he directly attribute the diphtheria. It is doubtful in the circumstances of insanitation reported in this and other like cases whether such an opinion would be generally accepted.

I am, Sirs, yours faithfully,

LENNOX BROWNE.

Mansfield-street, Portland-place, W., Oct. 21st, 1894.

## "REMUNERATION OF MEDICAL WITNESSES."

*To the Editors of* THE LANCET.

SIRS,—It is quite time something was done to give medical witnesses attending police-courts, sessions, and assizes fees commensurate with the services rendered by them at these courts. I was very glad, therefore, to see the special article in THE LANCET of the 13th inst. bearing upon this much neglected question of fees. Practitioners are now paid under the Acts of Sir George Grey of Feb. 9th, 1858, and Feb. 14th, 1863, which revoked "the Act of the seventh year of the reign of King George IV., cap. 64, and divers other Acts of Parliament." The fees under Sir George Grey's Acts are as follows:—Attending before magistrates within a distance not exceeding two miles, 10*s.* 6*d.*; beyond two miles, £1 1*s.*; mileage not to exceed 3*d.* each way. Attending at sessions or assizes, £1 1*s.* per diem; mileage the same as before magistrates. Second-class fare only is allowed. 2*s.* 6*d.* for the night at assizes, 2*s.* at sessions. It is simply monstrous to offer such fees to medical men. Police surgeons, whom these fees more especially affect, in many cases have large private practices. For them to leave their homes means a considerable loss to them, whatever fee they get, but to offer them one guinea for a day's work is simply an insult. Whether a medical witness

has one or a dozen cases at sessions or assizes, his pay is a guinea—he is paid by the day, not by the number of cases. This cuts very hard at times, often necessitating a witness stopping away from home during the whole time the session or assize is sitting. It seems to me we ought to have a modified fee for such cases—say, three guineas per diem for the first and one guinea for every additional case. One case has nothing to do with the others, each is complete in itself, and if the same medical witness was not in all, some other practitioner would have to be paid for his attendance. Insomuch as one witness does the work of five, ought he not to be paid for such work? I wish the Police Surgeons' Association every success in trying to rectify so grievous an anomaly. I am, Sirs, yours truly,

Southsea, Oct. 20th, 1894. LYSANDER MAYBURY.

## DIPHTHERIA AND ITS ASSOCIATION WITH SEWER AIR AND ROAD LEVEL VENTILATORS.

*To the Editors of* THE LANCET.

SIRS,—As it is at present a much disputed point whether sewer air and road level ventilators are productive of diphtheria or not, anything which tends to throw light on the subject will no doubt be of interest. As has been stated before, three things may be said of road level ventilators: (1) They are often useless in thoroughfares where there is much vehicular traffic, inasmuch as they are completely blocked up with mud; (2) they are often a nuisance, even where the gradients of the sewers are good throughout; (3) they are certainly a danger, inasmuch as they allow sewer air to pour out directly under people's noses. A year or two ago a new system of main sewerage with the ordinary road level ventilators was inaugurated in one of our neighbouring rural districts, and upon its being brought into use several serious cases of diphtheria almost immediately began to break out. The medical officer of health, Dr. Gibbes, at once had the drains flushed with a strong solution of perchloride of mercury, andhe told me the cases then stopped almost as quickly as they commenced. This would appear to show that sewer air may, under certain circumstances, give rise to diphtheria, and this to a certain extent is corroborated by evidence just to hand from St. Pancras, for examinations made in several of the schools where diphtheria has been prevalent show that the sanitary state of most of them is sadly deficient. I have no doubt we shall in time see the necessity of a regular house-to-house inspection and the ventilation of main sewers otherwise than by road level openings, for it must be admitted that very little check has been given to the progress of diphtheria by the measures hitherto in force. I am, Sirs, your obedient servant,

Surbiton, Oct. 15th, 1894. F. P. ATKINSON.

## "SOME SUBJECTS OF PUBLIC AND PROFESSIONAL INTERESTS."

*To the Editors of* THE LANCET.

SIRS,—It is positively refreshing to find a gentleman of Mr. Bryant's standing in the profession expressing freely his views on questions which affect the welfare of his professional brethren. The general practitioners of the country would feel grateful to see more consultants come forward and air their views on the ethics of the medical faculty.

There is just one point in Mr. Bryant's address which calls for elucidation. Speaking of quackery, he said: "The Government again encourage quackery by neither taking action nor giving power to the General Medical Council or great medical corporations to check or put down the practice of medicine and surgery by uneducated laymen, although they have not only established at great expense a General Medical Council to look after the education of the students through the Empire, and to see that all such should be well and liberally educated before they are allowed to practise upon the public, and, at the same time, have sanctioned pains and penalties against qualified men who from any cause may do harm in the exercise of their vocation; whereas, with a strange inconsistency, unqualified laymen of all kinds are left to do what they will without check or hindrance."

I should like to ask Mr. Bryant if the General Medical Council have at any time applied to the Government for power to put down quackery? I am confident that the profession would, if they had an opportunity, support the General Medical Council most heartily in any extension of their powers for the purpose named. There is also a question affecting most deeply the position of medical men who keep unqualified assistants which ought to be brought to the notice of the General Medical Council without delay. I refer to the rules and regulations issued by the Council and advertised in your columns. It is an undoubted fact that one half of the profession live in ignorance of the serious pains and penalties to which they are liable by employing unqualified men to visit their patients. It would be only right and proper that a copy of these regulations should be sent to every man whose name appears on the Medical Register. I am, Sirs, faithfully yours,

Cardiff, Oct. 23rd, 1894. T. GARRETT HORDER.

## GREAT NORTHERN CENTRAL HOSPITAL.

*To the Editors of* THE LANCET.

SIRS,—I think the medical profession as a body will cordially thank you for your able leading article on this subject. Having resigned my appointment at the Great Northern Central Hospital on the 10th inst., I venture to address you apart from my late colleagues, who will no doubt lay their case before you collectively. The whole medical staff have, as you surmise, reluctlantly acquiesced in the pay wards regulations, but the small minority in which I found myself (when attempting to obtain more stringent conditions of admission) convinced me that I should be unable to carry the contested points as a member of the staff. I think, under the regulations just now initiated at the hospital, the commercial interests of the medical staff and of the general body of practitioners outside the hospital are not sufficiently safeguarded. Hence I resign. My resignation I put forward simply as a protest.

I am, Sirs, yours obediently,

W. SPENCER WATSON, F.R.C.S.Eng., M.B.Lond.

Henrietta-street, Cavendish-square, W., Oct. 22nd, 1894.

*To the Editors of* THE LANCET.

SIRS,—To prevent misapprehension permit me to state that the suggestion I made to the Committee of the Great Northern Central Hospital on Friday last, that the wards recently thrown open to paying patients should be reserved for the patients of local practitioners who are unable to obtain proper nursing in their own homes, was made by me without previous consultation with the committee appointed to protest against the adoption of the pay system at the above-named institution. It appears to me that if local medical men were allowed to attend their own patients in the pay wards until the funds of the hospital permit of the whole of the beds being devoted to the gratuitous treatment of the sick poor, it would remove the most objectionable feature of the newly introduced system, by which the honorary medical staff are brought into direct competition with the general practitioners of the neighbourhood.

I remain, Sirs, yours faithfully,

GEORGE BROWN,

Charing-cross-road, W.C., Oct. 23rd, 1894. Vice-President Incorporated Medical Practitioners' Association.

## THE HARVEIAN ORATION: DIGNITY AND COMFORT AT THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

*To the Editors of* THE LANCET.

SIRS,—The Harveian Oration is one of the *fasti* of the *annus medicus*, and long may it remain so, albeit the ageis hostile to form and ceremony. Historic continuity in things medical is not to be despised, and we shall be, as was hinted in the magnificent oration to which we yesterday listened, no less successful in present-day work because of backward glances over the great past. There is, I submit, a place even for stately array on such rare occasions—the mace, the presidential robe, the galaxy of Fellows in hues of scarlet and of purple. Time was when such tokens were inseparable from the learned professions, and our ancestors deemed their dignity effaced unless they were adorned with wig and rich habit; the lawyers are still of this mind. Let us preserve by all means some semblance of the old majesty, if only in reverence to the past. And therefore I submit that at the Harvey celebration black frock-coats should be *de rigueur* for

those who do not care to don their academics, and that light tweeds and lounge costumes, such as those of some young gentlemen yesterday, show scant respect to the President and College. And could not our ancient College accommodate us a little better? In the contest for stuffed cushions many were the defeated, and it was not seemly to behold a distinguished Fellow, in the gorgeous colours of a London M.D., balanced on the edge of a table with evident discomfort during the hour's oration. Very thoughtfully the Orator traced the nature and results of muscular exercise, but willingly would some of his hearers have experienced muscular rest in their own persons. If the number of chairs was augmented by some score or two, and they were packed more economically of space, the usual crowd of weary auditors at the rear would no longer lean in various attitudes against a bookcase or a table.

I am, Sirs, yours truly,

Oct. 19th, 1894. R. H. F.

## LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

*Deaths from Hydrophobia.*

LANCASHIRE has had an unenviable notoriety for hydrophobia during the last year or two, and it is to be regretted that the muzzling order has not been more generally applied, though in the first of the following two cases, which is altogether peculiar and almost unique, it could not have averted the fatal issue. It is very satisfactory to observe that in each case the dreadful disease was promptly diagnosed and the symptoms were most carefully noted by the medical attendants. The first case formed the subject of an inquest before the city coroner on the 9th inst. The deceased was a man aged forty-eight years, and according to the evidence given by his wife he was bitten in the leg by a dog when in India fifteen years ago, but the wound healed and he never complained. About eight weeks ago he got a puppy collie dog with the intention of rearing it as a watch dog; it was then about a month or six weeks old. About a fortnight previously deceased showed his wife one of his hands, upon which there were several small marks, which he stated were the marks of bites from the puppy. The wounds healed in about two days, and nothing more was thought of the matter until the 15th inst., when, on returning from market, he felt very cold and chilled. He ate but little breakfast and immediately afterwards went to bed. His wife, thinking it might be an attack of ague, from which he suffered when in India, gave him five grains of quinine. He passed a restless night, was excitable, and at times experienced difficulty in breathing. Next morning he was seen by Mr. Langran, who resides near, and who found him complaining of a buzzing noise in the head, pain in the right side of the sternum, and general malaise, together with a sensation of sore-throat and a difficulty in drinking. Although the bowels were not confined the tongue was thickly coated with a brown fur. Mr. Langran prescribed a purgative, with bromide of potassium and hydrobromic acid every three hours. That evening he found that the difficulty in swallowing had increased, the mere thought of it bringing on laryngeal spasm and great mental disturbance; the patient had an anxious look, but conversed rationally and calmly. The doses of bromide were increased, with the effect of allaying the excitement. Though longing for a drink of iced water, the mere thought of it nearly choked him, and the sight of milk brought on a severe spasm. During the day he had a very violent convulsion, and four men were required to keep him in bed. When Mr. Langran saw him shortly afterwards his face, neck, and eyes were deeply congested, his muscles rigid, and his pillow was covered with saliva which he was blowing from his mouth. The pulse was 130 and the temperature 105·5° F. Ice was applied to the spine and a hypodermic injection of morphia and sulphate of atropine was administered. Dr. Glynn, senior physician to the Royal Infirmary and Professor of Physics at University College, saw him that evening in consultation. The patient had no further paroxysms, but expired that same evening at 10.30. The second case occurred at Wigan, the deceased man being aged thirty-nine years. On the 14th inst. he consulted Mr. W. R. Roocroft, of Wigan, complaining of stiffness about the neck and inability to sleep. He had noticed a slight difficulty of swallowing on the previous day. He denied ever having been bitten or scratched by any dog, but later Mr. Roocroft learned from his relatives that he was followed home by a strange puppy about July 15th, which scratched his finger, but that he took no notice of it and had quite forgotten it. He was removed to the Wigan Infirmary, remaining under Mr. Roocroft's care. The next day he was much worse, and well-marked symptoms of hydrophobia had developed. In spite of morphia and atropine injected hypodermically he had not slept; the temperature was 100·2° F. Large doses of chloral hydrate were given by the rectum every six hours, with carbolic acid hypodermically. In spite of all treatment he grew rapidly worse. There were fearful clonic spasms, acute mania with hallucinations, and delirium. Dr. Barron of Liverpool, who had had much experience of this disease, saw the patient several times during his illness, which ended fatally on the 17th. A post-mortem examination was made, at which Dr. Barron was present. I understand that it is the intention of Mr. Langran and Mr. Roocroft to report fully these cases, which are of painful interest. With such facts in evidence it is clear that not only ought the muzzling order to be general as regards dogs in the streets, but that dogs, and even puppies, at home may communicate the disease. In the first case the dog escaped, and had not been found when the inquest was held.

*Want of a Public Mortuary at Widnes.*

At an inquest held on the 19th inst. at Widnes Mr. Jones, the deputy coroner, mentioned that the body of the man into whose death the jury had inquired had been taken to three public-houses, but the tenants had refused to allow it to be taken in, as they had a perfect right to do, and a public mortuary was wanted in the borough. A juror suggested signing a recommendation to the Council. The deputy coroner observed that the overseers were the persons responsible, and suggested that the next time the difficulty presented itself the body should be taken to the overseer's house, and then they would soon have a mortuary. A better mode would be to warn the local sanitary authority that if a mortuary be not provided the Local Government Board could be memorialised to compel them to provide one. A mortuary is a necessity, not a luxury, in such a place as Widnes.

*Rewards to Police Constables for the Courageous Performance of Dangerous Duties.*

On the 19th inst. four of the city police constables were presented with medals from the Royal Humane Society for stopping runaway horses, this being the first occasion on which the Society had recognised this form of service, though, as the head constable truly remarked, it was no new experience to the constables. Such services can only be rendered to the public at considerable risk to the limbs and even the lives of these constables, and they ought certainly to be acknowledged, as the amount of danger and damage which may be caused by a runaway horse, especially when attached to a vehicle, is almost beyond calculation.

*Imputation against a Medical Man: Apology and Withdrawal.*

It may be remembered that at the assizes held here last Easter an action was brought by Miss Grey, a dressmaker at Waterloo, against Mr. Alexander Mackenzie for damages, it being alleged that by his negligence in not discovering that her servant was suffering from small-pox the disease had spread through the house and ruined her business. The case ended in a verdict for the defendant, Mr. Mackenzie being exonerated from any negligence. On Sept. 29th last Miss Grey wrote a letter to a lady, in which she implied that Mr. Mackenzie had committed perjury. The case was brought before the county magistrates on the 15th inst., and, counsel on each side having spoken, it was stated that Miss Grey had agreed in the frankest manner to withdraw and apologise for what she had written and to pay Mr. Mackenzie a small indemnity in the shape of costs, which had been agreed upon. The presiding magistrate, while regretting what had happened, expressed the wish of the bench that the matter should be settled as proposed.

*Small-pox in Liverpool.*

The returns of the medical officer of health for the city show that the cases have fallen to 17 for the week ending Oct. 20th, as against 26 for the preceding week. Of these cases 11 were notified under the Notification Act, and 4 were brought to light by house-to-house visitation. All the cases were traceable to previously infected centres.

Oct. 23rd.

## NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

*Saving of Life from Fire Damp.*

AT the meeting of the members of the North of England Institute of Mining and Mechanical Engineers on Saturday last, in Newcastle, an interesting paper was read by Mr. Simon Sate on the Saving of Life from After-damp, Smoke, or Fumes in Mines, in which he said that if the workmen left uninjured by an explosion could be rescued, colliery explosions would be deprived of some of their most terrible consequences. His idea was that any person in a mine at the time of an accident, whose passage to the shaft is cut off either by after-damp or smoke, should have a means provided by which he can separate the district from the other portions affected by the accident. To do this he proposed that close-fitting doors should be placed in suitable positions upon the intake and return air-ways, and also that relief-doors or slides should be placed in the holings between the intake and return air-ways.

*Surgeon-Major Hutton on Railway Ambulance.*

Surgeon-Major Hutton, writing to our local papers, says that the first thing to be sent to the scene of a railway accident is the break-down van train, which is kept at all leading railway stations, and one of the parts of this train is a complete dining carriage with a range capable of cooking for some thirty or forty men, and this is so constructed as to meet the requirements recommended by Professor Annandale in his recent letter to the *Times*. The place of an accident must always be unknown, and for this and the other reasons mentioned he looks upon Professor Annandale's suggestion as impracticable. He has no hesitation in saying that the ambulance system now in use by the North Eastern Railway Company only requires to be efficiently maintained on a permanent basis.

*Sanitary Contrasts.*

The number of deaths in Sunderland last week was 58, giving a rate of 22·2 per 1000 per annum. Of the deaths no fewer than 32 were of children under five years of age, while a short time ago the death-rate of South Shields and Morpeth was at the low rate of 7 per 1000 per annum.

*Are Artificial Teeth a Luxury?*

The Sedgefield guardians have had brought before them the case of a person who had been receiving relief and at the same time had been able to supply herself with a set of false teeth. The guardians reduced the relief from 5*s.* to 3*s.* per week. There are many ways of looking at this decision, one is, Did she save the purchase money out of her weekly allowance?

*Hospital Notes.*

The workmen of Sir W. G. Armstrong, Mitchell and Co., at Elswick, have contributed £214 to the medical charities of the city for the quarter ending Sept. 29th.—At the annual meeting of the Alnwick Infirmary, under the presidency of the Right Hon. Earl Percy, it was stated in the report that the number of patients had increased 58 per cent.—The secretary of the Sunderland Infirmary acknowledges the receipt of £1000 from the executors of the late Mrs. Foreman, given in memory of, and as a mark of respect to, her mother, Charlotte Thompson, deceased.—The Governors of the Royal Infimary, Newcastle, contemplate increasing their staff by the appointment of two additional assistant surgeons, and this recommendation of the house committee is to be considered by the quarterly court on Nov. 11th.

Newcastle-on-Tyne, Oct. 24th.

## SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

*Edinburgh Royal Infirmary.*

THE half-yearly report to Sept. 30th of the superintendent to the managers of the Royal Infirmary shows that the admissions were 4659, as compared with 4574 in the corresponding period of 1893. Of the total admissions, 2201 were medical and 2458 surgical cases. It was stated that the want of adequate accommodation was at times much felt, notwithstanding the efforts which had been made to make the benefits of the institution more evenly spread by shortening the periods of residence in all cases where that could be done with justice to the patients. The various departments had worked harmoniously and efficiently. The cases of poisoning which had occurred in the City Hospital and in one of the London hospitals had emphasised misgivings which the superintendent previously had regarding the efficiency of the Infirmary arrangements for the custody of poisons. These in their concentrated forms were under lock and key, but those in diluted forms in use for dressings lay in wards and elsewhere unprotected. Cupboards and other means had now been provided, and all such were now locked up and under proper control. The coal strike had not affected the Infirmary financially, for as soon as it threatened the cellars had, with much foresight, been filled, and their supply had lasted until the middle of September.

*A Druggist applying for a Grocer's Licence.*

At the Licensing Court for the city of Edinburgh last week a druggist in the city applied for a grocer's licence for wine only. He explained that he desired it in order to be able to sell medicated wines, such as "Kola and "Coca" wine, for which there was a growing demand. It was pointed out that if the court granted this licence they would establish a precedent which would, doubtless, be taken advantage of by other druggists. The justices refused the licence, but stated that it would be desirable to consider the whole question.

*Edinburgh Royal Maternity and Simpson Memorial Hospital.*

Mr. William A. Stephen, M.A., M.B., C.M., James Scott Scholar, and Mr. William Edgar Fothergill, M.A., B.Sc., M.B., C.M., Buchanan Scholar, have been appointed resident surgeons to this institution, and will enter upon their duties on Nov. 1st for a period of six months.

*Leith and the Appointment of Sanitary Inspector.*

Leith has appointed a sanitary inspector; but even in an appointment of this kind the authorities seem unable to act without charges of irregularity being made against them. The proceedings of the Public Health Committee in this and other matters have led to one of the bailies resigning his seat on that committee.

*The Medical Preliminary Examination for Edinburgh University.*

It is understood that the result of the last preliminary examination held in Edinburgh has resulted in the failure of something like four-fifths of the candidates. If this proportion of failures continues the University Court will find themselves face to face with a serious financial problem, for the University is very far from being independent of students' fees.

*Public Health Matters in Edinburgh.*

At the meeting of the Edinburgh town council last week a recommendation came up from the Public Health Committee regarding articles allowed to be sold in dairies, and also recommending that legal proceedings be instituted against certain dairy keepers for carrying on a trade in articles which would tend to contaminate the milk sold by them. The convener of the committee pointed out that there were only five dairy keepers who required to be dealt with, and they did not wish to deal harshly with them, and on his recommendation the matter was recommitted. He made an interesting statement regarding the steps which had been taken to improve the sanitary condition of dairies, or more correctly milk shops—that is, shops where milk is sold. Between 300 and 400 people had ceased to sell milk. There were now about 420 dairies in the town instead of 760 as formerly. Most of those who had given up selling milk lived in the poorest parts of the city, and they were mostly small shopkeepers who sold other things. Cut ham and vegetables, he said, contaminated milk. In some of the poorer districts the infant mortality was 100 per 1000 and even rose to 200 per 1000. Their medical officer told them that one great cause of infantile death was diarrhœa, and one great cause of that was tainted milk. It was very important that milk should be kept pure and sweet. This is a step in the right direction, for there is no doubt that it is desirable to have milk retailed only in shops confined to dealing in dairy produce. This would not only diminish the risks of contamination, but it would greatly simplify the surveillance which is necessary in this department of the food supply of town and country. At the same meeting the convener expressed his disappointment that cases of small-pox were still occurring, and he asked their

medical officer to use more freely the powers which the committee gave him in May last to conduct free vaccinations wherever he found it necessary, particularly in the quarter of the Canongate, where most of the cases had of late occurred. He hoped that they would soon be able to remove the temporary premises in the Cowgate, and also the temporary hospital in the Queen's Park. There were at the present time 174 cases of scarlet fever in the City Hospital.

*Queen Margaret College, Glasgow.*

At the meeting of the Glasgow University Court, held on Thursday last, a letter was read from the students of Queen Margaret College complaining of the inadequacy of the field for clinical work provided for them at the Royal Infirmary, and asking the court to take their difficulties into consideration. This the court promised to do. The University champions of the *status quo* at Queen Margaret College have never ceased to maintain that their provision for the clinical training of lady students was ample and suitable in every way; the above letter is a curious commentary on such an argument, and supports strongly the view put forward on many occasions in this column—that the arrangements for bedside instruction of lady students stand in need of a thorough and complete revision.

*Duties of Local Sanitary Authorities.*

It is with much satisfaction I note that THE LANCET'S condemnation of Dr. Littlejohn's report on the Saltcoats controversy is backed up by a strong protest on the part of the medical officer of health of Glasgow. In the report referred to Dr. Littlejohn, passing from terms of mild rebuke directed against the medical attendants in the Saltcoats cases (in which, in one of the instances, there is no occasion to differ much from him), goes on to make the following statement regarding the duties of sanitary officials: "It is impossible for any local authority to keep a watch over the movements of certified cases of infectious disease"—a statement which is doubly dangerous as coming from such a source. No one can wonder at the annual autumnal importation of infectious diseases from coast and country into the large towns if Dr. Littlejohn's views as to sanitary duty are at all widely held. The answer to those who object to making the watching of infectious cases part of the duty of sanitary officials is that the thing is already done in Glasgow as a part of ordinary routine and in circumstances vastly more difficult than those which prevail in the country. "In Glasgow an officer visits every case as soon as it is brought to our knowledge, and leaves in the house a copy of a pamphlet containing a popular exposition of the 'Law about Infectious Diseases.' In the case of scarlet fever he also leaves a special paper explaining the peculiarities of that disease as to the existence and duration of infection even in the mildest cases. If the case is removed to hospital, the inspector only requires to visit again for the purpose of seeing that disinfection has been carried out; but if not, he keeps up a constant surveillance, so that any such occurrence as that of which we complain very rarely takes place, and, if it does, is discovered, and information sent to the local authority into whose district the patient has been removed." This protects the public, but what of the practitioner? It is not easy to discover the use of compelling a medical man to report infectious diseases if responsibility for watching such cases does not pass on to the local authority along with the information. In cases of scarlet fever particularly, it is only the comparatively well-to-do who will submit to have medical attendance, and to pay for it during the long and tedious weeks of infectivity; the poor and even the ordinary working-class population, who need watching most, will not have such medical attendance, and for violations of law in such cases Dr. Littlejohn has no remedy. As a matter of fact there is no effect of the modern sanitary law which the private practitioner more prizes than the entire release it brings from the functions of a sanitary police; it cannot reasonably be expected of him that, after having satisfied the requirements of the law in reporting an infectious case, he should still be expected to fight the battles of the local authority. There is some comfort in the fact that, as the result of considerable correspondence, the Local Government Board have unreservedly adopted the most important, and indeed vital, principles, for which the Glasgow authorities have all along contended in this case, and without which notification would become little better than a farce—namely, first, that it is the duty of the local authority to supervise every case of infectious disease within their district; and, secondly, that it is the duty of the local authority to advise any other local authority when any removals take place.

*The Public Health of Glasgow.*

The death-rate for the past week was 18 per 1000, a satisfactory enough rate considering that scarlet fever has lately spread so rapidly. The mortality from scarlet fever has, fortunately, been low.

*The Glasgow University: Opening of the Medical Session.*

The formal opening of the medical classes for the winter session took place on Monday, Oct. 22nd, the occasion being rendered doubly interesting by the fact that the address was given by Dr. Coats, who thus not only inaugurated the session but also his own career as Professor of Pathology. Dr. Coats' appointment has given the liveliest satisfaction in every professional circle in Glasgow, and the students in particular were specially hearty in their welcome. He referred to the recent establishment of the chair he so worthily fills, and congratulated the University on its new footing of equality in this respect with Edinburgh and Aberdeen. He expressed much satisfaction with the new arrangements, whereby the Professor of Pathology has not only ordinary hospital work to aid him in his teaching, but has now also large laboratories in process of building, in the providing of which the directors of the Western Infirmary had, along with the University, taken a most enlightened and active interest. Dr. Coats appealed for more money for the founding of research scholarships and for means to carry on the study of the diseases of the lower animals, a subject which gradually led him on to the discussion of the main matter of his address—namely, "Fundamental Conceptions as to the Characteristics and Embodiments of Life, with Special Reference to Pathology."

*Anderson's College Medical School.*

In this school the time-honoured custom of having a general opening address has been abandoned, the Professors giving introductory lectures in their individual classes. The muster of students was large, giving promise of a successful session.

Oct. 23rd.

## IRELAND.

(FROM OUR OWN CORRESPONDENT.)

*Royal University of Ireland: Conversazione.*

THE annual conversazione of the graduates of the Royal University will take place in the evening of the day the degrees are conferred—viz., Friday, the 26th inst. There will be a concert, performances on the organ, scientific experiments, &c.

*Rabies in Nenagh.*

A good many cases of rabies have occurred in Nenagh, county Tipperary, of late. On Saturday last the workhouse guardians determined to send a woman who had been bitten by a rabid dog to the Pasteur Institute for treatment. Mr. Quigley, J.P., attended the woman and cauterised the wound, which was a severe one, and was on the outer part of the right thigh, a piece of flesh two inches long having been removed completely by the rabid animal. As the woman was bitten through her clothes, there is a probability that a serious result may not take place.

*Outbreak of Typhoid Fever in Tipperary.*

The cases of typhoid fever are more numerous than was at first suspected, and Dr. Browne, inspector of the Local Government Board, informed the guardians last week that he had visited a great number of infected houses, and that twenty-one cases of typhoid fever were in hospital. He made careful inquiries with a view of tracing the cause of the outbreak, and as a result was of opinion that a creamery was spreading the disease. The first case that occurred was in a family named Burke, one of whom, a son, was attacked with fever. This boy brought milk to the creamery day after day, and during the time that he was ill in bed milk was sent from the house to the creamery. It followed that the milk sent infected the whole of the creamery milk, and some of it was brought back to various houses, and in this way the outbreak took place. At the present time there were two members of the Burke family in the hospital, and a more insanitary house Dr. Browne never saw. It was in the centre of a cesspool. The chairman of the guardians gave notice of motion

to enforce the provision of the Infectious Diseases (Notification) Act.

*The Guinness Trust Buildings, Cross Kevin-street, Dublin.*

This large block of buildings, which was commenced in July, 1893, will soon be completed. The length of the building is 263 ft., with a depth of 40 ft., and it is composed of five storeys. The block consists of 115 separate tenements; there are 20 three-room tenements, consisting of a day-room and two bedrooms, 64 with two rooms, and 31 with only a single room. On every floor there are for every four tenants two waterclosets, scullery, sinks, and a laundry; also four baths, while hot water can be had on each storey at any reasonable hour, also gas. The building is expected to be ready next month.

*Bazaar in Aid of Portlaw Hospital.*

Last week a bazaar and fancy fair was held at Curraghmore, the seat of the Marquis of Waterford, in aid of the Portlaw Hospital. A large number of the gentry of the surrounding counties attended, and the financial result must have been satisfactory to the promoters.

*St. Vincent's Hospital, Dublin.*

The inaugural address on the opening of the winter session was delivered last week by Mr. McArdle. The lecturer referred to the decline in the number of Irish medical students. In seeking the causes, he divided them into "general," or those over which they had no control, and "local" which they could modify. Among the former might be mentioned: (*a*) the decline of property of Ireland; (*b*) the employment of so many educated men in the various Civil Service Departments; (*c*) the extension of the time of study to five years; (*d*) the abolition of night lectures, and agricultural depression; while the local causes might be summed up as follows: (*a*) frequent change of regulations; (*b*) constant addition of new subjects; and (*c*) uncertainty of examinations. The constant changes of the curriculum and the frequent unnecessary addition of subjects produced a condition of instability which must deter students from joining their schools, or would force men to seek elsewhere that settled and regulated procedure which was denied them at home. They found that hardly a year passed without some material change being made in the regulations. Students disliked this, teachers resented it still more, and after the obnoxious rule had deranged as far as possible the quiescence of the classes, it was allowed to drop into abeyance or was expunged. The regulations which allowed men (nay, more, encouraged them) to look upon hospital work as so much time lost could not be conducive to their well-being. While at least two searching examinations in anatomy were held, and the student must give proof of personal acquaintance with the subject requiring long and persistent work to acquire, they learned early in their course that it was not essential for them to pay any attention to hospital work during the first few years of study. The regulations of the colleges and universities, especially the latter, favoured this view, as no examination worth the name had ever been held until the completion of the course of study to test the proficiency of students in those branches of the profession which are of immediate moment to the public. He was glad that some little was being done to, in a slight degree, remedy this defect in their scheme of education, and that the light of truth was at last dawning on those who legislated for them. When would they fully realise that there was more valuable and thoroughly authenticated information now available than any of them could acquire? Thorough-going work would not be done in their hospitals by the great body of students until they taught them that their knowledge of surgery must be at least as real as that of anatomy. Once make this understood and they would have done much towards making the present generation of students thorough-going practitioners and their colleges worthy of the support they seek. Half a century ago Irish medical degrees held a position very different from that which they did now; then the stamp of the Irish College or University carried with it a weight disproportioned entirely to the opportunities their predecessors had of acquiring a knowledge of their profession, but their keen observation, their quickness of perception, their great energy caused nature to yield up to them many secrets—their genius had left them a great heritage. The very atmosphere of their schools was laden with the brilliant and unwritten ideas of generations of mighty minds. What had they done to transform this leasehold from their predecessors into a grant in perpetuity for those who came after them? What had they done to conserve this great property for the common weal? Unfortunately things were reversed; they now took their physic from France, their surgery from Germany, and the rest whence they listed.

*Death of Mr. W. H. Digges, L.R.C.P. Edin., J.P.*

This gentleman died on the 18th inst. at his residence, Acourt Lodge, Strand-road, Merrion, after a very short illness. He was a director of the firm of Messrs. Hamilton and Long, apothecaries, Sackville-street, Dublin, a Justice of the Peace for County Dublin, and a member of the Dublin Chamber of Commerce. Deceased was esteemed and respected by all sections of the community. He was fifty-five years of age, and leaves a widow and three children to lament his untimely decease.

For the week ending Oct. 13th three deaths were registered in Dublin from beri-beri and two from small-pox. The deaths from the latter were those of a woman aged twenty-two and a boy aged six years, both of whom were stated to have been vaccinated.

Surgeon Charles Ronayne has been appointed by the general commanding the Cork district medical officer in charge of the military troops at Youghal, *vice* Surgeon-Major Rogers, retired.

Oct. 23rd.

## PARIS.

(FROM OUR OWN CORRESPONDENT.)

*Hepatic Abscess during Convalescence from a Carbuncle.*

M. RICARD[1] reports an example of the above-mentioned complication occurring in a woman aged twenty-one years convalescing from a carbuncle of the temporal region. The purulent collection was discovered deep in the parenchyma of the organ; in the pus there was found the staphylococcus aureus in a state of purity. This observation is instructive in that it brings to mind possible and distant complications of a sufficiently common malady.

*Treatment of Purulent Ophthalmia of the New-born.*

On the same occasion M. Kalt related the numerous successes yielded in the treatment of the above serious affection by abundant irrigation by means of a 1 in 5000 solution of potassium permanganate. The apparatus devised by him for this purpose consists of a small funnel, the nozzle of which is introduced between the eyelids, while the other extremity is connected by means of a tube with a reservoir placed at a height of thirty centimetres above the eye. Each irrigation is effected every morning and evening with two litres of the solution at a temperature of from 30° to 35° C. Where corneal ulceration exists four daily irrigations must be practised for the first three or four days, after which they may be made less frequently. In order to avoid relapses the douching must be continued until all secretion has ceased. The superiority claimed for this mode of treatment over cauterisations is that it can be easily applied by the nurse.

*An Anti-rabic Institute at Marseilles.*

Through a decree, signed on Oct. 11th, the Minister of War directs that soldiers belonging to the 13th, 14th, 15th, 16th, 17th, and 18th Army Corps bitten by dogs affected or suspected to be affected with rabies shall henceforth be treated according to the method of Pasteur at the recently created institute of Marseilles, instead of being sent as hitherto to the Val-de-Grâce Hospital at Paris.

*The late M. Désormeaux.*

The name of this surgeon, who died last week at an advanced age, will recall to the minds of the readers of THE LANCET the introduction into practice of the endoscope. He was led to devise a method of visually examining the bladder by the discovery made in Germany about that time of the ophthalmoscope. In 1865 he published a series of lectures delivered at the Hôpital Necker, entitled "De l'Endoscope, de ses Applications au Diagnostic et au Traitement des Affections de l'Urèthre et de la Vessie." M. Désormeaux frankly avowed, however, that the idea really originated with Ségalas, who showed at the Academy of

[1] Académie de Medecine, Oct. 16th.

Science an urethro-cystic speculum at the same time that Récamier reinvented the vaginal speculum and revolutionised gynæcology. Appointed surgeon of the Hôpital Necker in 1862, he passed all his professional life there, and at the time of his death was on the honorary staff.

*Bulgarian Students in France.*

For a long time medical students hailing from Bulgaria resorted principally to Swiss universities. Now, however, that the Bulgarian Government, for reasons not specified, declines to recognise the validity of Swiss diplomas, 292 Bulgarians have matriculated at French faculties, the entries being 100 at Montpellier, eighty odd at Paris, thirty at Nancy, twenty-four at Bordeaux, and fifteen at Marseilles and Toulouse. It is expected that this number will shortly be increased to from 360 to 400.

*Surgical Tuberculous Lesions treated by Boiling Water.*

Since May, 1893, Professor Jeannel of Toulouse has systematically treated cases of localised tuberculous lesions, such as abscesses, ulcers, osseous and joint troubles, with boiling water as a cauterising and bactericidal agent. The method is applied as follows. After having freely opened the seat of mischief and slit up any sinuses that may exist, he excises if the lesion involves a joint. All the caseous detritus is then removed by curetting and thorough sponging of the parts, all bleeding being arrested. Then salt solution maintained at the boiling point in a recipient (coffee-pot) is allowed to fill the cavity through a thick rubber tube. The cavity is then afterwards filled and emptied until a sufficient degree of cauterisation is effected. It will be seen that this *modus operandi* is only possible in the case of a funnel-shaped cavity whose sides can be raised and kept apart by tenacula and which is unprovided with counter-openings — a condition frequently met with in practice. A second and preferable procedure is also employed by M. Jeannel. This consists in first filling the *foyer* with cold or tepid salt solution, and then raising the liquid to boiling point by introducing into it the blade of a thermo-cautery at a red heat. One minute suffices to fill a cavity the size of a pigeon's egg with boiling water in this way. The thermo-cautery method ensures a constant temperature of 100° C., but it is applicable only in the case of an abscess cavity wide enough to allow the introduction of the blade without touching the parietes. General anæsthesia is, of course, necessary, except in cases of small abscesses, when cocaine locally applied is adequate. When the patient awakes considerable local pain is complained of, but this disappears the next day. The parietes of the cavity—or the abscess membrane, as this used to be designated—becomes grey, and yields a copious secretion of serous discharge, which renders frequent renewal of dressings a necessity. In a few days a detergent process is evident, granulations develop, and cicatrisation rapidly ensues. Suppuration is rare; in certain cases, indeed, primary union is obtained. The boiling-water method is superior to ordinary cauterising procedures in that it softens, disintegrates, and sterilises the tissues to a greater depth. A perusal of the foregoing remarks may induce English surgeons to give M. Jeannel's method a trial.

Oct. 23rd.

## BERLIN.

(FROM OUR OWN CORRESPONDENT.)

*The Berlin Medical Societies.*

THE first meeting after the vacation of the Berlin Society for Internal Medicine was held on the 15th inst., Dr. A. Fraenkel presiding in the absence of the President, Dr. Leyden, who had been summoned to Russia to attend the Czar. Dr. Fraenkel spoke in warm terms of the life and work of the late Dr. Oscar Fraentzel, after which a communication was made by Dr. Ohrtmann, entitled "Historical Retrospect of Cholera in Berlin in 1831," which excited much interest from the manner in which the conditions then prevailing were contrasted with those at the present day. The *Deutsche Medicinische Wochenschrift* adds that "one of our medical veterans, Dr. Hildebrandt," gave some of his personal experiences of the succeeding epidemic of 1837. The Berlin Medical Society opened its session on the 17th inst., the President, Professor Virchow, alluding to the losses sustained by the society since its last meeting by the deaths of Drs. Cohnstein, Lewy, Fraentzel, L. Lewin, and an honorary member, Professor von Helmholtz. Dr. Mackenrodt related a case of Utero-uretero-vaginal Fistula ("Gebärmutter-Harnleiter-Scheidenfistel") successfully treated; and Dr. Rötter furnished a communication upon Total Extirpation of the Larynx, showing the patient, whose artificial vocal apparatus was very efficient. Dr. Blaschko discussed the subject of Strophulus Infantum.

*Antitoxin in Diphtheria.*

In the *Berliner Klinische Wochenschrift* of July 16th, Dr. Katz, assistant physician to the Kaiser und Kaiserin Friedrich Kinderkrankenhaus, relates in an interesting manner his experience of the treatment of diphtheria with Aronson's antitoxin. The patients were treated in the wards under Professor Baginsky's care. For the purpose of comparison Dr. Katz gives the mortality from diphtheria in the four years preceding that in which antitoxin was used. In 1890 the mortality from this cause was 50·4 per cent., in 1891 32·5 per cent., in 1892 35·4 per cent., in 1893 41·7 per cent., while the mortality from the beginning of 1894 until March 14th, when the antitoxin treatment was first employed, was 41·8 per cent. From March 14th till June 20th, 1894, 128 cases, in all of which Löffler's bacillus was detected, were treated with antitoxin, with the result that the mortality fell to 16·5 per cent., as compared with 37 per cent. for the same period of the previous year. Dr. Katz divides his cases into four classes—mild, moderately severe, very severe, and septic cases—of which he gives the distinctive characters. The mild cases were 47 in number, and all recovered; the second class numbered 35, and 1 died; in the third group there were 42, of which 11 died; the septic cases were 4 in number, and all died. The antitoxin was not found in any case to be injurious, and experience taught the necessity of an increase in dosage from 3 to 5 cc. to 20 cc. in severe cases. In milder cases 5 to 7½ cc., according to the age and development of the patient, were employed. A scarlatinoid rash appeared in some cases after the use of this agent, but no desquamation followed. The injections were not found to influence false membranes already existing, but there was no invasion of the larynx after their use. It is important to note that when, on admission, the pulse and heart of the patient were found to be acting feebly, as is usually the case when the disease has lasted some time, there was scarcely any benefit derived from the use of antitoxin. This is an argument for its early use. A weaker solution was used as a prophylactic, and in the case of 72 persons so treated and exposed to infection only 8 caught the disease. Dr. Katz does not write too enthusiastically on the subject, and his conclusions therefore carry the more weight. His facts, however, speak for themselves. The false hopes raised at one time by the advocates of tuberculin, together with a recollection of the clinical fact that cases of diphtheria which recover often do so with surprising rapidity, inculcate caution in our attitude towards the future of antitoxin, but I believe we are justified in assuming that we are on the right road towards the more successful treatment of a scourge which has hitherto entailed a very high rate of mortality.

## VIENNA.

(FROM OUR OWN CORRESPONDENT.)

*The Antitoxin Treatment of Diphtheria.*

AT the meeting of German naturalists and physicians held in Vienna last month one of the most attractive subjects discussed was that of the papers of Professors Behring and Ehrlich on Serum Therapeutics and on the Use of Behring's Antitoxin in the Treatment of Diphtheria. But neither paper brought any new facts before the meeting, and the most interesting communication concerning this question was made by Dr. Wassermann of Berlin. He was endeavouring to obtain information on the question of idiosyncrasy as regards proclivity to or immunity from an infectious disease. For this purpose he withdrew a quantity of blood from persons who remained healthy though surrounded by persons suffering from diphtheria, and studied the effect of this blood on the diphtheria bacillus and its toxines. He found that the blood of such healthy persons destroyed the toxine of diphtheria, and neutralised tenfold its bulk of the toxine. In eight persons aged over forty years he found in seven the same antitoxic property of the blood, while the percentage of younger persons possessing such antitoxic blood

was lower and reached only 50 per cent. of the children examined between four and fifteen years of age. The papers on the antitoxin treatment caused more sensation and enthusiasm among readers of the lay press than in medical circles, where the experiments of Professor Behring have been well known for several months. A perfect "furor injiciendi" was raised among the public by the pathetic leading articles of the Austrian and German daily journals. They had a beneficial effect in Vienna. We have very little hospital accommodation for sick children, and it happens from time to time that a child who cannot get admission to one of the numerous but small hospitals for children dies in the arms of its mother in the street. Now the "benevolentia et misericordia publica" have been directed to the treatment of poor sick children, and 30,000 florins were collected to procure treatment with serum. But this movement has had also a very grave disadvantage. The physicians called to a case of simple sore-throat are now asked immediately by the parents to make an injection of the antitoxic serum, especially since Professor Behring has pointed out that the injections should be made as early as possible. And another difficulty has arisen. The antitoxin is manufactured by the "Holchster Farbwerke," and this establishment has not been able to meet the demands now rapidly increasing in consequence of the public interest which has arisen in all parts of the world. And even now some Vienna hospitals have great trouble in getting a sufficient quantity of serum. As far as I could learn the results obtained with the new treatment were not unfavourable, and, according to the statistics shown to me by some pædiatric physicians, the mortality of the patients treated (among them being some very grave cases) varied between 20 and 25 per cent.; but it is impossible to judge from such small figures, and we will have to wait for more detailed and calm observation before arriving at a definite decision as to the therapeutic value of the antitoxic serum. It is the intention of the Austrian Government to manufacture new remedies of the antitoxic class; and Professor Paltauf, the Vienna bacteriologist and patho'ogist who has under his care the Vienna Pasteur Institute, has been asked to make the preliminary experiments for this purpose. Professor Paltauf, who at first made experiments with the antitoxins on goats, is now experimenting on horses, and five horses are now being used for the preparation of the antitoxic serum for diphtheria at the Vienna veterinary school. He has also been able to state that the blood does not lose its antitoxic properties even after frequent and free venesections.

*The late Professor Ludwig Mauthner.*

The career of one of the most prominent men of the Vienna medical school has just terminated tragically. On the morning of Oct. 19th the official *Wiener Zeitung* published the appointment of Dr. Ludwig Mauthner as Professor of Ophthalmology at the Vienna University, and in the night he died suddenly from heart failure. Twice already his name had been put on the list of the candidates for the Professorship of Ophthalmology at the Vienna University by his colleagues: first upon the decease of Professor Ferdinand von Arlt, and afterwards upon that of Professor von Jaeger. In both cases the Minister of Education declined to appoint Professor Mauthner, who left the Innsbrück University without official permission many years ago, preferring to teach his subject at Vienna as a simple *privat-docent*. Professor Mauthner was born at Prague on April 13th, 1840. He studied medicine in Vienna, and while still a student made an interesting discovery at Professor Bruecke's laboratory. As a result he was the first to describe the giant nerve fibres in the spinal cord of fishes. He took his degree as a Doctor of Medicine at the Vienna University in 1861, and then worked in Berlin under Professor von Graefe in that celebrated clinic of ophthalmology. In 1866 he became Professor von Jaeger's assistant at the Vienna General Hospital. In 1869 he was appointed Professor of Ophthalmology at Innsbrück, a place which he left for Vienna in 1877. Since 1877 he taught as *privat-docent* at the Vienna University and at the Vienna Policlinic, and his excellent post-graduate courses on his subject, especially his lectures on Anomalies of Refraction and Accommodation, were exceedingly popular among English and American physicians. He devoted himself especially to ophthalmoscopic work, and his papers and lectures on the Connexion between the Eyes and Brain have made his name well known to the medical world at large. His work on Ophthalmoscopy gave the impulse for the construction of Loring's ophthalmoscope, and his book on Optical Defects as well as his Lectures on Ophthalmological Subjects were translated into most foreign languages. The Vienna University has lost an excellent and celebrated teacher, and ophthalmology one of its most active promoters.

*The Illness of the Czar.*

I am credibly informed that the reports on the illness of the Czar of Russia published in the lay press here and in some of our medical papers, and widely quoted from in England and elsewhere, are not based on any information given by his medical attendants. These gentlemen have until now declined to give any statements regarding the nature of the disease or its prognosis to any persons not belonging to the Imperial Russian family. All the reports and remarks published have been simply conjectures of journalists or physicians residing far away from the patient.

Oct. 22nd.

## RUSSIA.

(FROM OUR OWN CORRESPONDENT.)

*The Health of the Czar.*

THE *Government Messenger* of Oct. 7th (19th) contains grave news concerning the health of the Emperor. Two bulletins are published. The first, dated Oct. 5th (17th), runs as follows: "The state of the Emperor's health has changed for the worse; the general weakness and the weakness of the heart have increased." The second, dated Oct. 6th (18th), states: "There is no change in the state of the Emperor's health." Both bulletins are signed by Professors Leyden and Zakharin and by Drs. Hirsch, Popoff, and Velliaminof. All that is publicly known of the nature of the disease from which the Czar is suffering is contained in these and in two earlier bulletins, of which the first, published on Sept. 18th (30th), stated that the Emperor was suffering from nephritis following influenza, and the second, published on Oct. 5th (17th), that the condition of the kidneys showed no improvement, while the strength was diminishing. It was, however, generally known before the publication of the first bulletin that the Emperor was seriously unwell. As far back as February he was observed to be ailing. Obstinate sleeplessness was from the first the most prominent symptom, and this told severely upon a constitution already weakened by two attacks of influenza. He became extremely pale and lost weight at an alarming rate, so that long before the first official announcement was made rumour was busy upon the nature of the malady. The condition of the kidneys was discovered early in the autumn, though the date when it was first detected has not been made known. A troublesome symptom has been persistent vomiting, and this gave rise to a rumour that there was malignant disease of the stomach. At present this remains entirely unconfirmed. The Russian papers are forbidden to publish a word upon the subject beyond what is contained in the official bulletins. The Emperor passed the summer at Peterhof, thence he went to Biélovejsk, and afterwards to Spala; but at each remove his general condition became worse. He still, however, bore up courageously, and refused to admit that his health was seriously affected. At Spala he frequently joined shooting parties, only, however, to find himself quite unequal to the exertion, and he had more than once to be assisted back to the shooting lodge in an exhausted condition. Then came the consultation with Professor Leyden, followed by a removal to Livadia, the Empress's palace, close to Yalta in the Crimea. There for a time the news was reassuring. It was officially announced that he had reviewed in person the whole Black Sea fleet off Sebastopol; that he had made an excursion to the waterfall of Utchansu; and that he had spent four hours on a visit to his daughter, the Grand Duchess Xénia; but this was quickly followed by the serious announcement made in last Tuesday's bulletin that the disease of the kidneys had not improved and that the strength was declining. To-day's bulletins are taken as confirming the worst fears, and it is very far from impossible that before this letter reaches England the telegraph may have forestalled it with still graver news.—Oct. 8th (20th): The following bulletin is published this morning: "Livadia, Oct. 7th, 10 P.M: The night of the 6th-7th was passed almost without sleep. In the morning the Emperor arose as

usual. The general weakness and the action of the heart are in the same state. The dropsy of the legs, which had recently appeared, has rather increased. In general the condition is as before."

*Russian Medical Congresses.*

The sixth conference of the Pirogof Society of Russian Physicians will be held in Kief between April 21st and 28th, 1896.—At a recent meeting of the Moscow Chirurgical Society a proposal was brought forward and carried that periodical congresses of Russian surgeons should be held in different centres.

*The Cholera Epidemic.*

Since Sept. 22nd (Oct. 4th) the authorities have ceased to publish daily bulletins of cholera in St. Petersburg. They are now published twice weekly. In yesterday's return only fourteen cases were "remaining under treatment." In the provinces cholera has also declined considerably.

*New Institutions.*

The foundation stone was laid last week of a new hospital for the treatment of the chronic diseases of children. Professor Lesghaft has approached the Minister of Education with a proposal to institute a biological laboratory in St. Petersburg. The necessary capital (200,000 roubles) has been found, and also a building for the laboratory.

*The University of St. Vladimir.*

On Nov. 1st the Medical Faculty of the University of St. Vladimir, in Kief, will celebrate the twenty-fifth anniversary of its foundation. The University itself was founded in 1833, after the suppression of that of Vilna, which followed the Polish insurrection of 1832.

St. Petersburg, Oct. 8th (20th).

## CANADA.

(FROM OUR OWN CORRESPONDENT.)

*The "Patrons of Industry" and Medical Men.*

DURING the past year there has sprung into prominence and some political power an organisation known as the "Patrons of Industry." There were a number of them returned to the Ontario Legislature at the late election, and the grand board of the Order instructed its representatives, who, by the way, seem to hold the balance of power as between Conservatives and Liberals, to act according to the following resolution: "Resolved: That Clause 16 of the Medical Act of Ontario be repealed, and that the power of the Medical Council to annul the certificate of any physician regularly authorised by the faculty of any duly chartered College to practise medicine be abrogated, and that charges of fraud or wrongdoing made against any medical man shall be tried by the ordinary courts, on the same principles and under the same procedure as apply to criminal acts committed by others." One can hardly be surprised at any move these persons may make when one of the leaders recently said he thought "a medical man was well remunerated for setting a fractured leg by the fee of one dollar" (4*s.* 2*d.*), and his followers agreed with him.

*Executive Health Officers of Ontario.*

The ninth annual meeting of the Executive Health Officers of Ontario was held in Chatham on Aug. 14th and 15th. Considerable discussion took place regarding the adoption of filter beds by our Canadian towns as a means of furnishing pure water for the inhabitants. Mr. Chipman, C.E., said the difficulty would be found to rest with the proper and successful management of the filter beds, and he cited cases in proof of his contention.

*The Canadian Medical Association.*

The annual meeting of this association was held in St. John, New Brunswick, on Aug. 22nd and 23rd, under the presidency of Dr. Harrison Selkirk. Dr. Muir gave the history of a Case of Tuberculosis of the Arm, which had been in existence fourteen years (the bacillus of tuberculosis being present), and which, after being scraped, was infected with erysipelas, a complete cure being the result. Appendicitis was discussed by Dr. Bell of Montreal, who reported forty-eight cases, forty operations, five not operated on, and three deaths altogether. He advocated surgical interference in nearly all cases. He considered the plan of waiting for pus to form not the best surgery. The Address in Medicine was delivered by Dr. Bayard of St. John, being entitled "The Influence of the Mind on the Body." Dr. Hingston of Montreal reported Four Cases of Operations on the Brain, two for epilepsy. In one case a hydatid was found pressing on the brain, which was removed, and the patient recovered. One case presented was that of a young man who for twenty years had suffered from paralysis of the left arm and facial distortion due to spasm and over-development of the zygomatic and orbicularis muscles, being the results of an injury to the right side of the head. By operation there was removed a thickened portion of bone surrounded by a cartilaginous material which impinged on the brain tissue; as a result there was improvement of the symptoms. Dr. L. Duncan Bulkley of New York read a paper on the Treatment of Skin Diseases, pointing out some of the points to be observed in the treatment of syphilis, acne, psoriasis, and urticaria.

## Obituary.

### P. H. WILLIAMS, M.R.C.S., L.R.C.P. LOND.

THE news of the death of Mr. P. H. Williams of Windsor has been received with much regret by a wide circle of friends. Mr. Williams was born in Monmouthshire and studied at St. Thomas's Hospital, where he worked at his profession with great industry and devotedness. He qualified in 1874, and obtained the appointment of house surgeon to the Windsor Royal Infirmary; this post he held for five years, winning the esteem of all with whom he came into contact. In 1879 he commenced private practice, and soon acquired an extensive *clientèle*, for his numerous patients felt that in their medical adviser they had a conscientious friend, a trusty counsellor, and a skilful practitioner. At the death of the late Mr. Fairbank Mr. Williams was elected honorary surgeon to the Windsor Infirmary, an appointment to which he devoted much time, attention, and energy. About a month ago, while operating on a hospital patient who was suffering from cellulitis, he unfortunately pricked his finger; a week later severe inflammation developed in the axilla, and an abscess resulted, which was opened by Mr. Stanley Boyd and drained; but apparently his system was thoroughly infected, for double pneumonia set in, and, notwithstanding the assiduous care of Mr. Fairbank, who attended to his friend and patient night and day, Mr. Williams died on the 15th inst., aged fifty-one. Much sympathy was displayed in Windsor during his illness and his death was deeply regretted. To men like him whose loss we deplore it is due that our profession deservedly bears the title of honourable.

### W. L. EMMERSON, M.D. ABERD.

THE death of Dr. Emmerson at the age of seventy-two, occurred on Wednesday, the 17th inst. He had suffered for two or three years past from painful bladder and kidney troubles, and latterly had been in the habit of taking chloral freely. His nervous system was always highly sensitive, and in his earlier days he suffered more intense migraine than falls to the lot of most men. In the intervals he was a most cheerful and almost brilliant man, with wide scientific knowledge and sympathies. A little after the middle period of life the intense headache ceased to trouble him, and he developed regular gouty attacks. Dr. Emmerson was born in South Shields, and after holding the appointment of surgeon to the Consett Ironworks, Shotley Bridge, and, later, practising in North Shields, he went to Leicester to practise. There his knowledge of chemistry and microscopy stood him in good stead, and he was appointed public analyst to the counties of Leicester, Northampton, and Rutland. While in practice in North Shields he published statistics of 1000 obstetric cases in the Report of the North of England Medical Society for 1855. He was a very versatile man, and could range over any kind of subject with a certain speculative interest. It was probably in this sort of way that at a certain time of his life he dabbled in homœopathy; but he was too acute a man and too conscious of the great lines of medical science to depart seriously depart from them. In private life he was kind and sociable. He married in early life Miss Bolton, the daughter of an able practitioner in Ebchester, near Newcastle-on-Tyne. Mrs. Emmerson, greatly esteemed

and beloved by all who knew her, died some years ago, to the great loss of Dr. Emmerson and his many children. Of these, two are in the profession—Dr. J. B. Emmerson, of Biggleswade, and Dr. W. L. Emmerson, jun., of Leicester.

## THE AMERICAN PUBLIC HEALTH ASSOCIATION.

(FROM A SPECIAL CORRESPONDENT.)

*(Concluded from page 950.)*

THURSDAY evening was devoted to a *conversazione* at McGill University. The magnificent McDonald engineering buildings were thrown open to the visitors. On the last day of the convention the programme was immense, containing thirty papers, many of which were only read by title and referred to the Publication Committee. Mr. J. Elzéar Pelletier of Montreal recommended the publication by the Society of a quarterly journal, considering it would be a more rapid and certain means of reaching the public, and less expensive than a yearly volume. Car Sanitation was again dealt with by Drs. Patterson of Manitoba and Conn of Concord. The points brought out were the dangerous dust from cushions and floors and the defective ventilation in passenger cars. The Disposal of the Garbage and Refuse of Cities was discussed by Dr. Wordin of Bridgeport, Colonel Morse of New York, and Mr. Rudolph Hering, C.E., of New York: it was held that combustion is the only way worth considering. Dr. Hingston, Chief Surgeon of the Hôtel Dieu, took for his subject the Influence of the Climate of Canada on Health. The ideas brought forward were in continuation of a *brochure* published by Dr. Hingston some years ago. Dr. Mendizabal of Vera Cruz discoursed in Spanish on La Fiebre Amarilla en Vera Cruz.

The afternoon of the last day brought forth a plethora of papers on Hygiene in Schools. Dr. J. I. Desroches, the editor of the *Journal d'Hygiène Populaire*, Montreal; Dr. Probst of Ohio; Dr. Jesus E. Montjaras, San Luis, Potosi; Dr. Greff, Philadelphia; Dr. Gauthier, Upton, Quebec; Dr. Brennan, Montreal; and Dr. T. D. Reed of Montreal presented communications on the subject. Dr. Reed strongly urged the introduction into schools of the suggestions of the Anthropometric Committee of the British Association for the Advancement of Science. Dr. McPhail of Montreal described an epidemic of 120 cases of paralysis in children, which had occurred in Rutland, Vermont, a few months ago. These were not cases of hysteria, as in some post mortem there were evidences of change in the cord. The etiology was not understood. Dr. Laberge, health officer of Montreal, gave a long account of the advances in sanitation in the city of Montreal. Garbage and nightsoil are now disposed of in an immense incinerator, with a chimney 200 feet high. There are two milk inspectors, and bread and meat are stamped. The death-rate has been steadily decreasing, and keeps pace inversely with the amount spent in sanitary work. Dr. Foucher of Laval University introduced the subject of "Myopie dans ses Rapports avec l'Hygiène Scolaire." The paper was illustrated by charts showing that the experience the world over was that with the advance of education myopia increased. In the discussion Dr. Hopkins of New York inquired how the physiology of reproduction could be taught to schoolgirls without immodesty. He also pronounced himself quite sceptical as to any danger of myopia from judicious education.

The titles of some of the other papers were: "Ventilation of Schools," by Mr. J. E. Doré of Montreal; "The Burial Ground," by Dr. Beaudry of Montreal; "Prevention of Venereal Diseases," by Dr. Pelletier of Montreal; "Sanitary Value of Certain Waters," by Dr. Ruttan of McGill University; "Durée Physiologique du Travail au point de vue intellectuel et physique," by Dr. Fortier of Montreal. Omitted in a former part of this report was a paper by Dr. Sewell of Denver on Climatic Segregation of Consumptives. The arid region of which Denver is the centre, with a rainfall of less than fourteen inches, was described and recommended as exceptionally well-conditioned for the situation of cottage sanatoria.

Dr. Nagle of New York showed the Tubes and other appliances used in New York in dealing with diphtheria. A medical man meeting with a suspicious case of sore-throat sends to a druggist's shop for a sterile tube, inoculates it, and sends it into the laboratory for cultivation, a report being furnished without charge in twenty-four hours. Dr. Nicolas de Arellanos (Mexico) read a paper on La Cuarentena en la Viruela. Dr. Brennan put in a Plea for Aseptic Vaccination. Bacillus Pyocyaneus as a Cause of Infantile Mortality was the title of a paper by Drs. Adami, K. Cameron, and E. P. Williams of Montreal. Three cases of illness, two of them fatal, had occurred in a foundling institution; the diagnosis during life had been purpura hæmorrhagica, as there had been hæmorrhages from toes and noses, and an eruption; by cultivation of matter from the eruption the bacillus pyocyaneus was found. It is claimed that this is the first instance recorded in America of the blue-pus-forming microbe as a cause of death. On the Etiology of Mexican Typhus Fever was the contribution by Dr. Jesus Chico, Guanajuato, Mexico; Algunas Consideraciones acerca la Prostitucion, by Juan de Arellanos, Mexico; and the Prevention of the Spread of Yellow Fever, by Dr. Walter Wyman of the United States Marine Hospital Service. The Evolutionary Developments of Domestic Plumbing during the Past Thirty Years was by Mr. J. W. Hughes of Montreal. Free and Liberal Ventilation of Sewers, by Mr. C. Baillargé, C.E., Quebec, brought the scientific work of the congress to a close.

Dr. Bailey of Kentucky is the new President, and Denver the place of next meeting. The Montreal committee had wisely timed the "picnic" feature of the congress to come on after the work was over. This consisted of a trip down the St. Lawrence in a special steamer to Grosse Isle, the chief quarantine station of the Dominion of Canada. The local committee having made lavish arrangements, the invitation to a three days' trip on the water in splendid weather, everything free, was, as might be expected, generally accepted, and practically all the members attending the convention were present. As the invitation included ladies the gentle sex was well represented. Canada is specially well situated for water quarantine, as all ships must come up the St. Lawrence. Grosse Isle is thirty miles below Quebec and 210 miles from Montreal. It is a rocky well-wooded island about one square mile in area. It is wholly devoted to quarantine purposes, and is under the control of Dr. Montizambert. Two steamers and a steam launch are on hand with steam up to challenge every vessel coming up the river. The arrangements for dealing with the sick and "suspects" are very complete. The island has splendid detention buildings for saloon passengers, plainer ones for intermediates, and plainer still for steerage; 1825 passengers can be accommodated at one time. The method of dealing with a passenger is as follows. The luggage is taken out of the trunks, placed in a wire cage, and this, placed on a truck, is run on a tramway to the disinfecting building. The owner of the baggage has a check to redeem his goods on the other side of the building when they come out pure. The trunks themselves and also all articles, as furs and leathers, which cannot stand heat, receive a bichloride drench. As to the passenger himself and the clothing he has on, he is taken upstairs, made to strip, and locked in a little metallic compartment, where *nolens volens* he is subjected to the lavatory effects of a needle and shower-bath; he cannot get out until his purified suit is brought to him. The purifying process for the clothing is by steam. A circular thermometer is placed in the middle of a bundle connected by wires to an indicator, and when 212° F. has been reached the engineer is informed by the ringing of a bell that he has got up enough steam; when 231° has been reached another bell rings a warning that the heat must be checked. The business of the engineer is to keep his dial somewhere between 212° and 231° for half an hour; then the process is complete. To prevent the effect of moisture on the clothing, before the chambers are opened to cool the steam is sucked out. The island has on it two neat chapels, residences for the medical officers, chaplains, and other officers, a hospital constructed on modern lines, and separate buildings for each infectious disease. The United States and Mexican visitors one and all declared the Grosse Isle station to be one of the most perfect and satisfactory, if not the most perfect, they had ever visited.

Altogether, the twenty-second annual meeting of the American Public Health Association may be considered to have been a very successful one. The attendance was large, only exceeded by the meeting in Mexico, which made the record for attendance.

# Medical News.

**EXAMINING BOARD IN ENGLAND OF THE ROYAL COLLEGES OF PHYSICIANS AND OF SURGEONS.**—The following gentlemen passed the First Examination of the Board, in the subjects indicated, at the quarterly meeting of the examiners, under the four years' regulations :—

**Part I., Chemistry and Physics :—**

Ainsworth, Ralph Bignell, St. George's Hospital.
Allen, Walter Francis, London Hospital.
Barrett, Edmund Howard, St. Mary's Hospital.
Cornish, Philip Alfred, Middlesex Hospital.
Hancock, William Edwin Harrie, University College, Bristol.
Illius, Henry Warwick, St. Bartholomew's Hospital.
Irvine, Guy Harle, University College, Bristol.
Kay, Alfred Reginald, St. Bartholomew's Hospital.
Mayhew, Christopher John, King's College, London.
Mayne, William Boxer, University College, London.
Meade, Charles Graham, St. Bartholomew's Hospital.
Milner, Norton, Firth College, Sheffield.
Olivey, John Michael Abraham, Cambridge University and St. Thomas's Hospital.
Paddock, Thomas Danily, University College, Liverpool.
Parsons, Arthur Ruscombe Crane, King's College, London.
Rees, Rees William, Surgeons' Hall, Edinburgh.
Sheehan, Michael, Queen's College, Cork.
Sheldon, Arthur Izod, St. Paul's School, West Kensington.
Shortland, John Louis Vincent, King's College, London.
Smith, William Christian Baumgarten, St. Bartholomew's Hospital.
Stolterforth, Charles Sigismund, University College, Liverpool.
Tarbet, Peter Rowley, University College, London.
Thomas, David Jones, London Hospital.
Williams, Gwilym Went Stenart, St. Bartholomew's Hospital.
Winston, Gerald Denton, St. Mary's Hospital.

**Part II., Materia Medica and Pharmacy :—**

Bailey, Ernest Castleigh, King's College, London.
Baker, Clement John, Middlesex Hospital.
Baskin, Joseph Longheed, Queen's College, Cork.
Battersby, James, St. Mungo's College, Glasgow.
Beath, David Leslie, St. Bartholomew's Hospital.
Blackwood, John, University College, London.
Boulton, Thomas, Owens College, Manchester.
Boyan, John, St. Bartholomew's Hospital.
Burton, Percy, Middlesex Hospital.
Cogan, Lee Danby Buxton, Guy's Hospital.
Coltart, Henry Neville, St. George's Hospital.
Davidson, William Alexander, Mason College, Birmingham.
Davies, Thomas, Guy's Hospital.
Eames, Edward Barnard, St. George's Hospital.
Finch, Alexander Henry, Guy's Hospital.
Freer, Alfred Eldon, St. Mary's Hospital.
Gange, Percy Ridley, University College, London.
Gott, Jeffrey, King's College, London.
Hamilton, John James Cecil, King's College, London.
Homer, Charles, St. Mary's Hospital.
Hunter, Harley James, St. Bartholomew's Hospital.
Kemp, William Rous, St. Mary's Hospital.
Ljunggren, Carl Anders, St. George's Hospital.
Lock, Lyonel John, London Hospital and Trinity College, Dublin.
McClean, John Francis, St. Thomas's Hospital.
Maitland, Pelham Christopher, Middlesex Hospital.
Nasmyth, Donald Kilve Luttrell, Charing-cross Hospital.
Nicholls, Henry Cecil, Charing-cross Hospital.
Payne, Joseph Lewin, Guy's Hospital.
Power, Herbert Robert, Melbourne University and St. Mary's Hospital.
Ransome, Gilbert Holland, St. George's Hospital.
Ross, Alexander Michael, King's College, London.
Scott, Ernest Harold, St. Thomas's Hospital.
Sykes, Reginald, Yorkshire College, Leeds.
Weir, Thomas Lindsay, Middlesex Hospital.
Willis, Harry Alexander Legge, St. Mary's Hospital.
Wilson, John Mayor, Middlesex Hospital.
Wood, James, Owens College, Manchester.

**Part III., Elementary Anatomy and Elementary Physiology :—**

Atal, Pundit Piaray Lal, Lahore Medical College.
Baskin, Joseph Longheed, Queen's College, Cork.
Battersby, James, St. Mungo's College, Glasgow.
Cogan, Lee Danby Buxton, Guy's Hospital.
Farhi, Hillel Jacob, Protestant College, Beyrout, and London Hospital.
Gladstone, Arthur Edward, St. Thomas's Hospital.
Hyde, Edwin, Cambridge University.
Mahmood, Syed Abul, University College, London.
Oliver, Major Byron, University College, London.
Wood, James, Owens College, Manchester.

**Elementary Physiology only :—**

Asplen, Urban Morris, Cambridge University and King's College, London.
Kellett, Orme Stirling, Cambridge University.

**SOCIETY OF APOTHECARIES OF LONDON.**—At a recent examination the following candidates passed in the subjects indicated :—

*Surgery.*—E. A. Dodson, Royal Free Hospital; W. A. Higgins, Birmingham; A. J. Hopper, Durham; W. H. Peake, Guy's Hospital; A. S. Robinson, Leeds; W. S. Webb, London Hospital.

*Medicine, Forensic Medicine, and Midwifery.*—M. Carter, Charing-cross Hospital; E. A. Dodson, Royal Free Hospital; A. W. Hayles, King's College Hospital; G. M. MacDonald, King's College Hospital; A. S. Robinson, Leeds.

*Medicine and Forensic Medicine.*—R. B. Allen, St. Mary's Hospital; G. C. Stamper, Guy's Hospital.

*Medicine and Midwifery.*—T. Morris, Liverpool; H. A. Walker, Manchester.

*Medicine.*—J. R. Birdseye, St. Bartholomew's Hospital; C. E. R. Bucknill, St. Mary's Hospital; C. A. Newbold, St. Bartholomew's Hospital.

*Forensic Medicine and Midwifery.*—W. A. Higgins, Birmingham; W. Pell, St. Thomas's Hospital.

*Forensic Medicine.*—R. B. Rees, Middlesex Hospital.

*Midwifery.*—P. H. Court, Middlesex Hospital; J. Friend, Leeds; E. C. B. Ibotson, Guy's Hospital; J. H. P. Vivian, St. Thomas's Hospital; H. J. L. Wales, Guy's Hospital.

To Messrs. Bucknill, Court, Friend, Hayles, Ibotson, MacDonald, Robinson, Wales, and Miss Dodson was granted the diploma of the Society.

**UNIVERSITY OF GLASGOW.**—The following gentlemen have passed the first professional examination for the degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.), under the new regulations, in the subjects indicated below (B., Botany; Z, Zoology; P., Physics; C., Chemistry) :—

John Aitken (Z., C.), Arthur James Ballantyne (Z. C.), Robert Fisher Ballantyne (B., P.), Andrew Aitken Barclay (P., C.), James Barrowman (B., P.), James Napier Baxter (Z., C.), William Bennett (P.), James Symond Beveridge (P., C.), William Broad (P.), John James Buchan (P., C.), James Robert Chalmers (B., P.), Andrew Clark (Z.), David Maclure Cowan (B., P.), John Craig (B., P.), William Crerar (Z., C.), John Ronald Currie, M.A. (B., Z., P., C.), William Dick (Z., C.), Robert Douglas, M.A. (Z., C.), Kenneth M'Kenzie Duncan (B., Z., P., C.), Binnie Dunlop (P., C.), John Ballantyne Dykes (B., P.), Hugh Campbell Ferguson (B., P.), James Fulton Findlay (Z., C.), Robert Fullarton, M.A. (B., Z., P., C.), Alexander Garrow (B., P.), David Sloan Harvey (B., Z., P., C.), Harold Smith Heap (Z., C.), John Henderson (B., Z., P.), Isaac Mackay Huey (B.), Nicol Jamieson (B., C.), Edward William Reese Jones (B., Z., P., C.), Pierce-Jones (B., Z., P., C.), William Wallace Keir (B., Z., P., C.), Andrew Kerr (B.), Andrew Stewart Lang (B., Z., P., C.), Alexander Lawrie (B., Z.), John Wilson Leitch, M.A. (B., Z., P., C.), Alexander Matheson (B., Z., P., C.), James Blakely Miller (B., Z., P., C.), James Alexander Mitchell (Z., C.), Percival Ambler Mitchell (B., Z., P., C.), James William M'Dougall (P.), Dugald M'Kinlay (B., C.), Alfred Robert Maclurkin (B., P.), Alfred Duncan Macnair (Z., C.), Roderick Reid Macnicol, M.A. (P.), William Gardner Neill (Z., C.), Robert Niven (B., Z., C.), Percival Leslie Pearce (B., P.), John Reid (Z., P.), Robert Rennie (P., C.), William Alexander Riddell (Z., C.), Daniel Scanlan (B., C.), Joseph Wilkie Scott (Z., C.), John Shaw, M.A. (B.), David Ap Simon (P., C.), James Smith (Z.), James Johnston Smith (Z., P.), William Hart Steel, B.A. (B., Z., P., C.), Francis Stevenson (B., Z., P., C.), Frederick Ernest Stokes (B., Z., P., C.), Thomas Morton Strang (B., Z.), Andrew Taylor (Z., C.), Robert Taylor (B., P.), Robert Thom (B., P.), Alexander Dey Thompson (B., P.), Thomas Bird Tierney (B., Z.), Robert Andrew Hannan Watson (B., Z., P., C.), William Webster (Z., C.), Edward Roberts Weir (P.), Alexander Simpson Wells (B., P.), Joseph White (B., P.), Robert George White (B., P.), James Patterson Wilson (Z., C.), Robert Wylie (B., C.).

*Women Candidates.*—Daisy Annabelle Bennett (B., C.), Sarah Davidson (B., Z.), Jessie Downie Granger (B., Z.), Jane Lorimer (P.), Eva M'Call (B., Z.), Minna Amelia Macfarlane (P., C.), Annie Louise M'Ilroy (Z., P.), Margaret Wallace Howie M'Neil (B., Z.), Mabel Catharine Poulter (B., Z.), Catherine Love Smith (B., P.), Sara Whiteford (B., P.), Grace Lorrain Young (B., Z.).

**The following candidates have passed the first professional examination (old regulations) for the degrees of Bachelor of Medicine (M.B.) and Master in Surgery (C.M.) :—**

James Andrew, William Duncan, John James Edgar, Richard Hewson Hunter, Thomas Grieve Milligan, William M'Mullen Pearson, and William Ure.

*Woman Candidate.*—May M'Mullen Pearson.

**The following have passed the second professional examination (old regulations) for the degrees of Bachelor of Medicine (M.B.) and Master of Surgery (C.M.) :—**

James Francis Agnew, James Mitchell Bonar, William Brown, Charles Cairnie, M.A., Hugh Calderwood, John Lindley Carstairs, M.A., Alfred Charlton, Thomas Cochrane, John Crawford, John Arthur Clarke Doonan, Thomas M'Gibbin Fletcher, James Graham, James Donald Holmes, John Lunn, John Hepburn Lyell, William Martin, M.A., Samuel Martyn, Archibald Mason, William M'Gilchrist Montgomery, Andrew Brown Murray, Thomas Duncan Newbigging, John James Robertson, James Craik Taylor, John Taylor, James Vair, James Weir, Andrew Colville Wilson.

*Women Candidates.*—Annie Kirkby Anderson and Roberta H. M. Stewart.

Miss Lucy Buckley, B.Sc., has passed the second professional examination (new regulations) for the degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subjects of Anatomy and Physiology.

**The following have passed the third professional examination for the degrees of Bachelor of Medicine (M.B.) and Master in Surgery (C.M.) :—**

*A. (including Pathology).*—James Adam, William Alexander, William Allan, John Anderson, John Lindsay Anderson, Robert Brownlee Barr, Thomas Bell, Thomas Black, Henry Broom, Robert Buchanan, M.A., B.Sc., Samuel Capie, William Clow, M.A., B.Sc., Frederick Burtlett Cormick, Samuel Donaldson Cowan, M.A., John Hannay Douglas, Joshua Ferguson, M.A., James Forster, James Reid

Foulds, Andrew Fleming Galloway, Thomas Cleator Garrett, John Gillan, M.A., John Gordon, James Drummond Graham, John Alexander Graham, Joseph Green, James Henry, George Hodge, Arthur Holt, Gavin Dalzell Hunter, Frederick James Jayne, David Kerr, David Connor Kirkhope, William Lawson, Robert King Miller, John Miller Woodburn Morison, Adam Cubie Muir, James Andrew Dixon Mulholland, Donald Munro Edward Mackay, Lewis MacLachlan, William Macleod, George M'Pherson, Wallace Ainsworth Pride, Samuel Prior, John Broadfoot Rae, John Neil Robertson, William Scobie, B.D., Alexander Scott, James Smith, Thomas Orr Speirs, James Sproull, Alexander Stevenson, Alexander Stewart, Alexander Hamilton Stewart, James Stewart, James Edmund Fergusson Stewart, James Stirling, Joseph Milton Thornley, Charles Kirk Toland, Anthony Vost, Ernest Alexander Walker, M.A., Herbert Kidson Wallace, B.Sc., Henry Allan Watson, M.A., Frederick Wolverson, Albert Samuel Worton, Herbert Yearnshaw, Archibald Young, B.Sc., and John Young (Glasgow).

*Women Candidates.*—Ursula Chaplin, Edith Ellen Goodrich, and Emmeline Marie Stuart.

*B. (not including Pathology).*—Francis James Barker, M.A., Thomas George Arbuckle Brown, James Souter Christie, Peter Skinner Clark, Robert Mackechnie Fraser, M.A., Robert Howieson Gemmell, Walter Graham, George Jubb, James Kirkland, James William Otto Van Millingen, Frank Mort, James M'Clure, James Campbell M'Clure, Angus M'Pherson M'Intosh, William Jones Mackinnon, Samuel M'Lean, Robert M'Naught, William John Orr, Edward James Primrose, M.A., John Rankin, and Harry Muir Watson.

ROYAL COLLEGES OF PHYSICIANS AND OF SURGEONS IN IRELAND: CONJOINT SCHEME.—The under-mentioned candidates have passed the following examinations:—

*Second Professional Examination.*—G. H. Fisher, J. J. Foley, W. E. Joliffe, M. Mitchell, and J. F. Shortt.

*Five Years' Scheme in Anatomy, Physiology, and Histology.*—S. G. Longworth.

*Third Professional Examination.*—U. S. Burke, M. Cahill, M. A. Caraher, M. J. Carroll, E. A. Chartres, H. F. Conyngham, E. Corsellis, T. J. Crean, W. M. Cummins, T. Hennessy, H. Herrick, E. C. Hodgson, E. Kennedy, H. E. Kinsella, H. B. S. Montgomery, J. M. Montgomery, W. M. MacCormack, J. J. MacDonagh, H. S. Roberts, S. J. Scott, M. S. Walsh, J. S. Watson, and F. C. Wright.

ROYAL COLLEGE OF SURGEONS IN IRELAND (SCHOOLS OF SURGERY).—The school prizes for the session 1894 will be distributed by the President of the College, Mr. Thornley Stoker, on Thursday, Nov. 1st, at 12 o'clock, in the board room of the College. The school buildings have been recently reconstructed at a cost of £8000.—Mr. Francis Saunderson Morrison (Dundalk), having passed the necessary examination, has been admitted a Fellow of the College.

THE SURREY COUNTY HOSPITAL.—A County meeting will be held at 3 P.M. to-day (Saturday), in the County Hall, Guildford, in aid of the Royal Surrey County Hospital. H.R.H. the Duke of Connaught, K.G., has kindly consented to preside. The following noblemen and gentlemen have expressed their intention of being present:—The Lord-Lieutenant of the County (Admiral Egerton), Lord Knutsford, the Earl of Onslow, Viscount Midleton, Lord Ashcombe (Mr. Cubitt), Baron Henry de Worms, M.P., Hon. St. John Brodrick, M.P., Hon. Henry Cubitt, M.P., Sir Richard Webster, Q.C., M.P., Mr. E. J. Halsey (chairman of the Surrey County Council), and the Mayor of Guildford. The object of the meeting is to assist the special committee of the hospital, formed for the purpose to provide as capital a sum of £3,300, and to raise the annual subscriptions by £500.

LITERARY INTELLIGENCE.—The first part of "Cassell's Universal Portrait Gallery" contains twenty-four portraits of celebrities, with autographs and concise biographical sketches.—Sir Benjamin W. Richardson's essay on the subject, "How to make the Most of Life," is to be published in the new number of Longmans' Magazine for November, 1894.—A new System of Surgery by American authors is about to appear in three imperial octavo volumes. The editor is Frederic S. Dennis, M.D., Professor of the Principles and Practice of Surgery, Bellevue Hospital Medical College, New York, President of the American Surgical Association, Member of the Royal College of Surgeons of England, &c. He will be assisted by John S. Billings, M.D., LL.D., Edin. and Harvard, D.C.L. Oxon., Deputy-Surgeon-General, U.S A. The first volume will contain a History of Surgery by Dr. Billings, and a chapter on Surgical Bacteriology by William H. Welch, M.D., Professor of Pathology in the Johns Hopkins University, Baltimore. Professor Dennis has been fortunate in procuring the assistance of most of the leading surgeons and teachers of surgery in the United States. Among the general chapters in Vol. I. will be one by the editor on Fractures and Dislocations; one on Anæsthesia by Horatio C. Wood, Professor of Therapeutics in the University of Pennsylvania; and one on the Technique of Antiseptic Surgery by Alfred G. Gerster, M.D., Professor of Surgery in the New York Policlinic.

UNIVERSITY OF DURHAM: EXAMINATION FOR THE DEGREE OF DOCTOR IN MEDICINE.—The gold medal for the best essay, 1894, has been awarded to George James Crawford Thomson.

BRITISH MEDICAL TEMPERANCE ASSOCIATION.—The President and Council of the British Medical Temperance Association intend to hold a conversazione for medical students on Friday, Dec. 7th, at the London Temperance Hospital, Hampstead-road, by kind permission of the Board.

MIDLAND MEDICAL SOCIETY.—The inaugural meeting of the above society will be held at the Grand Hotel, Birmingham, on Thursday, Nov. 1st, at 7 o'clock. Dr. Theodore Williams will deliver an address on the "Modern Treatment of Pulmonary Consumption." All members of the profession will be admitted on the production of their cards.

SUPERANNUATION ALLOWANCE.—At a meeting of the Hull Board of Guardians on the 16th inst. the question of a pension to Mr. John Dix, lately medical officer of health to the workhouse, was again considered. An animated discussion ensued, with the result that Mr. Dix was granted a superannuation allowance of £120 per annum.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.—A West Kent division of the London and Counties Medical Protection Society was founded at a meeting held at St. Bartholomew's Hospital, Chatham, on Oct. 13th. Dr. J. V. Bell (Rochester) took the chair, and introduced Dr. Heron, who explained the objects and scope of the society. The following were elected officers of the division:—President: Dr. J. V. Bell (Rochester). Vice-Presidents: Mr. A. H. B. Hallowes (Maidstone), Dr. C. Firth (Gravesend), Dr. D. T. Playfair (Bromley), and Mr. P. Selby (Teynham). Members of Council: Dr. A. Buchanan (Chatham), Mr. J. Holroyde (Chatham), Mr. R. J. Bryden (Gravesend), Dr. C. E. Hoar (Maidstone), Mr. Peter Swales (Sheerness), and Mr. J. A. Bell (Rochester). Honorary Secretary: Mr. W. A. Dartnell (Rochester).

READING PATHOLOGICAL SOCIETY.—The annual meeting of this society was held in the lecture-room of the Royal Berkshire Hospital on Wednesday afternoon, Oct. 17th. The President of the Society (Mr. O. C. Maurice) presided. The minutes of the last meeting having been read, the President said they had met to celebrate the fifty-third anniversary of the Reading Pathological Society under happy auspices, inasmuch as they had their esteemed friend, Mr. Bryant, to address them. He then dwelt upon the sad fact that the society had lost no less than three prominent members during the last twelve months—Mr. Barford, Dr. Moody Ward, and Mr. John Workman. Mr. Bryant then addressed the meeting, using substantially the words of the address to the Hunterian Society which we printed in our pages last week. The President moved, and Mr. Walters seconded, a hearty vote of thanks to Mr. Bryant for his interesting and instructive address. The vote having been carried with acclamation, Mr. Bryant briefly responded, and the meeting terminated. The members subsequently dined together at the Queen's Hotel.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.—At a meeting of the Fellows held on St. Luke's Day the following were elected for the ensuing year:—President: Walter G. Smith. Vice-President: A. J. Horne. Censors: Joseph Redmond, H. C. Tweedy, A. J. Horne, and H. C. Earl. Additional examiners to take the place of absent Censor in Medicine.—In Medical Jurisprudence and Hygiene: S. T. Gordon. In Midwifery: A. V. Macan. Royal College of Physicians of Ireland Examiners under the conjoint scheme with the Royal College of Surgeons of Ireland, not including the above Censors, who also examine at the fourth professional examination.—Biology: E. Cosgrave. Chemistry and Physics: H. J. Bewley and Edwin Lapper. Materia Medica and Pharmacy: F. Quinlan and N. Falkiner.—Physiology: J. M. Purser. Pathology: H. C. Earl. Medicine: A. W. Foot and J. W. Moore. Hygiene and Forensic Medicine: C. Norman. Royal College of Physicians of Ireland Examiners for the Conjoint Diploma in State Medicine.—Hygiene: F. B. Quinlan. Chemistry: E. Lapper. Meteorology: J. W. Moore. Engineering: A. Murray. Royal College of Physicians of Ireland Examiners Preliminary Examination.—Science: E. Cosgrave. Languages: H. J. Bewley. Representatives on the Committee of Management: J. Magee Finny, C. Nixon and G. P. Nugent. Treasurer: L. Atthill. Registrar: G. P. Nugent.

MR. JOHN CARTER of New Cavendish-street has been commissioned to send immediately, direct to the Anitchkoff Palace, St. Petersburg, the most modern adjustable couch in his establishment for the use of the Czar of Russia.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—We are asked to announce that the next meeting of the West London Medico-Chirurgical Society, to be held on Nov. 2nd, at 8.30 P.M., in the West London Hospital, will be devoted to a discussion on Diphtheria, in which the profession generally are invited to take part.

ST. GEORGE'S HOSPITAL MEDICAL SCHOOL.—The annual distribution of prizes to pupils of this school took place in the board-room of the hospital on Wednesday, the 24th inst., at 4 P.M. Mr. Timothy Holmes, consulting surgeon to the hospital, presided, and distributed the prizes as well as certificates to the entrance scholars of the year, whose names were recently announced in our columns. At the conclusion of the proceedings Mr. Holmes delivered a short address in which he warned the students against the impression which the present examination system was liable to produce, that anatomy and physiology were merely introductory subjects instead of integral parts of medicine and surgery. He expressed his belief that the admitted excellence of London medical education was largely due to the healthy competition which exists between the twelve schools established in the metropolis.

THE HOWARD ASSOCIATION.—We have received the report of the Howard Association for the year ending October, 1894. The prospect of legislative action with respect to habitual drunkards is noted with satisfaction, the association being in favour of detention for periods of not less than one year or more than two years. For habitual vagrants and other misdemeanants the recommendation is imprisonment with hard labour and a uniform system of cumulative sentences. The boarding-out of pauper children and the Elberfeld system of apportioning the poor among their prosperous neighbours for visitation and help—not necessarily relief—are commended. In the section on prison discipline attention is called to the need for further diminution of child imprisonment, for better selection of the warders, and for increased facilities to lady visitors. The superiority of the separate or cellular system of prison construction is strongly insisted on.

PRESENTATIONS.—On Oct. 11th Mr. J. Arthur Kempe, F.R.C.S. Eng., on his leaving Birmingham for an anatomical appointment at Edinburgh, was presented by his pupils with a massive silver goblet, engraved with his crest and coat-of-arms, names of donors, and the following inscription: "As a small token of friendship, in grateful recognition of his untiring efforts on their behalf."—Mr. G. W. Willett, a member of the Brighton Town Council, has presented the Corporation with a very handsome and exact portrait of Alderman Dr. Ewart, J.P., in recognition of the admirable manner in which he has discharged the duties of Mayor of Brighton during the past three years.—At the twenty-third *conversazione* of the Chester Society of Natural Science and Literature, recently held in the town-hall, Chester, Dr. Henry Dobie was presented by the Countess Grosvenor with the Kingsley Memorial Medal for "having contributed materially to the promotion and advancement of some branch or department of the Natural Sciences."

## BOOKS ETC. RECEIVED.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand, London.

Asthma and Chronic Bronchitis. By J. C. Thorowgood, M.D., F.R.C.P. New Edition. 1894. pp. 136. Price 4s.

BLACKIE & SON, Old Bailey, London, E.C.

A Text-book of Organic Chemistry. By A. Bernthsen, Ph.D. Translated by George McGowan, Ph.D. Second English Edition. 1894. pp. 596. Price 7s. 6d.

CASSELL & Co., London.

The Uric-acid Diathesis, Gout, Sand, and Gravel. By Dr. F. Levison. Translated from the German and edited by Lindley Scott, M.A., M.D. Aberd. 1894. pp. 152. Price 3s. 6d.

CHURCHILL, J. & A., New Burlington-street, London.

A Treatise on the Diseases of the Ear. By T. Mark Hovell, F.R.C.S. Edin., M.R.C.S. Eng. 1894. pp. 720. Price 18s.

The Practice of Medicine. By M. Charteris, M.D. Seventh Edition. 1894. pp. 712. Price 10s.

Index Pathologicus. By J. C. Howden, M.D. 1894. pp. 86. Price 6s.

CLAY, C. J. & SONS, Cambridge University Press Warehouse, Ave Maria-lane, London, E.C.

A History of Epidemics in Britain. By Charles Creighton, M.A., M.D. Vol. II. From the Extinction of Plague to the Present Time. 1894. pp. 883. Price 20s.

Practical Physiology of Plants. By F. Darwin, M.A., F.R.S., and E. H. Acton, M.A. Illustrated. 1894. pp. 321. Price 6s.

HOGG, JOHN, Paternoster-row, London, E.C.

The Whist Table. Edited by "Portland." pp. 472.

LEWIS, H. K., Gower-street, London, W.C.

Medical Nursing. By the late James Anderson, M.D., F.R.C.P. Edited by E. F. Lamport, with an Introductory Biographical Notice by Sir Andrew Clark, Bart. 1894. pp. 184. Price 2s. 6d.

The Dyspepsia of Phthisis: its Varieties and Treatment. By W. S. Fenwick, M.D., B.S. Lond. 1894. pp. 203. Price 6s.

On Chorea and Choreiform Affections. By W. Osler, M.D. 1894. pp. 125. Price 5s.

MACMILLAN & Co., London.

On Preservation of Health in India. By Sir J. Fayrer, K.C.S.I., M.D., F.R.S. 1894. pp. 51. Price 1s.

METHUEN & Co., Essex-street, London, W.C.

Round the Red Lamp: being Facts and Fancies of Medical Life. By A. Conan Doyle. 1894. pp. 328. Price 6s.

PENTLAND, YOUNG J., Edinburgh and London.

Pentland's Medical Series. Vol. III.: Diseases of the Throat, Nose, and Ear. By P. McBride, M.D., F.R.C.P. Edin. Second Edition. Illustrated. 1894. pp. 680.

PHILIP, GEORGE & SON, Fleet-street, London, E.C.

Local Government Act, 1894. A Practical Ready Reference Guide to the Election of Parish and Rural District Councillors. By J. H. Stone, M.A., and J. G. Pease, B.A., Barristers-at-Law. 1894. pp. 84. Price 2s.

The Practical Guide to Algiers. By G. W. Harris. Price 3s. 6d.

SAMPSON LOW, MARSTON, & Co., Fetter-lane, London, E.C.

Manual of Swedish Drill. Compiled by George L. Melio. Second Edition. Illustrated. 1894. pp. 81. Price 2s. 6d.

SAUNDERS, W. B., Walnut-street, Philadelphia.

A Manual of Human Physiology. By Jos. H. Raymond, A.M., M.D. Illustrated. 1894. pp. 382.

Essentials of the Diseases of the Ear. By E. B. Gleason, S.B., M.D. 1894. pp. 147.

SHAW & SONS, Fetter-lane, London, E.C.

The Sale of Food and Drugs Acts, 1875 and 1879, with the Margarine Act, 1887, and the Fertilisers and Feeding Stuffs Act, 1893. By Sir W. J. Bell, LL.D., and H. S. Scrivener, B.A. Oxon. Second Edition. 1894. pp. 146. Price 4s. 6d.

SOCIÉTÉ D'ÉDITIONS SCIENTIFIQUES, Rue Antoine-Dubois, Paris.

Travaux d'Électrothérapie Gynécologique. Par le Dr. G. Apostoli. 1894. Vol. I. Fascicules I. et II.

STILLWELL & Co., Collins-street, Melbourne, Australia.

Thoughts, Observations, and Experiments on the Action of Snake Venom on the Blood; with an Appendix. By George B. Halford, M.D. 1894. pp. 71.

SWAN SONNENSCHEIN & Co., Paternoster-square, London.

Lectures of Human and Animal Psychology. By W. Wundt. Translated from the Second Edition by J. E. Creighton and E. B. Titchener. 1894. pp. 454.

THE RELIGIOUS TRACT SOCIETY, Paternoster-row, London.

By-Paths of Bible Knowledge. XXI.: The Sanitary Code of the Pentateuch. By the Rev. C. G. K. Gillespie, A.K.C., A.C.P. 1894. pp. 96.

WHITTAKER & Co., London.

Dissections Illustrated. By C. G. Brodie, F.R.C.S. In Four Parts. Part III.: The Head, Neck, and Thorax. Illustrated. Price 10s.

WHITTINGHAM & Co., 91, Gracechurch-street, London.

What is Heat? a Peep into Nature's Most Hidden Secrets. By F. Hovenden, F.L.S., F.G.S., F.R.M.S. 1894. pp. 350.

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Die Behandlung der Gonorrhöe nach neuen Grundsätzen; von Dr. J. Rosenberg, Berlin; mit 7 Abbildungen (Williams & Norgate, London, 1895).—Leitfaden der Gerichtlichen Medicin, für Studirende und Aerzte; von Dr. K. J. Seydel (Williams & Norgate, London, 1895).—The Insurance Blue-Book and Guide for 1894–1895 (twenty-second year of publication) (Champness & Co., Ludgate-circus, London, E.C.).—Lectures on the Diagnosis of Abdominal Tumours; by W. Osler, M.D.; reprint (D. Appleton & Co., New York, 1894).—The Friend of China: the Organ of the Society for the Suppression of the Opium Trade, October, 1894 (P. S. King & Son, Westminster, S.W.); price 3d.—Wright's Improved Physicians', Surgeons', and Consultants' Visiting Lists; compiled by R. Simpson, L.R.C.P., L.R.C.S., (J. Wright & Co., Bristol, 1895); price 5s. 6d.—The Asclepiad, first quarter, 1894–95 (Longmans, Green & Co., London).—National Health; by Conway Scott (Wm. Mullan & Son, Belfast, 1894); price 6d.—Journal of Anatomy and Physiology; Part I., October, 1894 (C. Griffin & Co., London); price 6s.—The Royal Natural History; vol. ii., Part 12 (F. Warne & Co., Bedford-street, Strand, London); price 1s. net.—The Influence of Diseases of the Nose and Naso-Pharynx on Other Parts of the Body; by W. Scheppegrell, A.M., M.D.; reprint from the New Orleans Medical and Surgical Journal, August, 1894.—Notes on Beri-Beri, as observed in the Malay Peninsula from 1882 to 1888; by A. W. Sinclair, L.R.C.P., L.R.C.S.; reprint from the Transactions of the British Medical Association Meeting held at Leeds, 1889.—Magazines for October: The Strand, the Picture Magazine; the English Illustrated Magazine (November).

# Appointments.

*Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to* THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

BATHURST, LULLUM WOOD, M.B. Lond., M.R.C.S., L.R.C.P., has been appointed Resident Medical Officer at the London County Asylum, Hanwell.

BODY, H. M., M.R.C.S., has been reappointed Medical Officer of Health for the Crediton Rural Sanitary Districts.

BOSTOCK, JACOB J., M.B., L.R.C.S.I., L.M., K. & Q.C.P., has been appointed Medical Officer and Public Vaccinator of the Banstead Division of Epsom Union, vice A. Lattley, resigned.

CATTLEY, ROBERT, M.B., C.M.Edin., D.P.H. Camb., has been appointed Medical Officer of Health to the York City Council.

CHEVES, J. T., M.R.C.S., has been appointed Medical Officer for the Third Sanitary District of the St. Germans Union.

COLLIER, H. STANSFIELD, F.R.C.S., has been appointed a Demonstrator of Anatomy at St. Mary's Hospital Medical School.

DAWSON, W. R., M.D. &c. Dubl., has been appointed Assistant Medical Superintendent to Farnham House and Maryville Private Asylums, Finglas, Dublin.

EVANS, CHARLES W., M.D. Lond., M.R.C.S., has been reappointed Medical Officer of Health for the Bakewell Urban Sanitary District.

EVES, P. S., M.B., B.S., has been appointed House Surgeon to the Cumberland Infirmary, Carlisle, vice H. Finley, M.D., resigned.

FUSSELL, E. F., M.B. Aberd., M.R.C.P. Lond., has been reappointed Medical Officer of Health for East Sussex.

HODGSON, V. J., L.R.C.P. Lond., M.R.C.S., has been reappointed Assistant Medical Officer of Health to the Port of London.

HARSTON, L. DE C. E., L.R.C.P. Edin., M.R.C.S., has been appointed *pro tem.* Medical Officer for the Pirbright Sanitary District of the Guildford Union.

ISAACS, E. PERCIVAL, M.R.C.S., L.R.C.P., has been appointed House Surgeon to the *Dreadnought* Seamen's Hospital, Greenwich, vice Arthur Jervis, resigned.

LAWRIE, W. DUNCAN, M.B., C.M., has been appointed Junior House Surgeon to the Branch Seamen's Hospital, Royal Albert Dock, E.

MACDOUGALL, A. H., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer for the Crumpsall Workhouse of the Township of Manchester.

MARTLAND, E. W., M.R.C.S., L.R.C.P. Edin., L.S.A., has been appointed Honorary Surgeon to the Oldham Infirmary.

MORGAN, HARRY D. RIEMER, M.A., M.R.C.S., L.R.C.P., has been appointed Medical Officer of Health to the Cockington Local Board.

NICHOLSON, W. T., M.B., C.M., has been appointed Superintendent to the Victoria Infirmary, Glasgow.

NITCH-SMITH, REGINALD, M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Medical Officer to the *Warwick Castle*, under Government Transport orders.

PALM, P. ADRIAN, M.D., C.M. Edin., has been reappointed Medical Officer of Health, Wigton.

PAWLETT, T. L., L.R.C.P. Lond., M.R.C.S., has been appointed Junior Assistant Medical Officer to the Cornwall County Asylum, Bodmin.

ROYDEN, WM., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for the Rural Sanitary District of the East and West Incorporation.

RUTHERFORD, J. M., M.B., C.M. Edin., has been appointed Assistant House Surgeon to the Cumberland Infirmary, Carlisle.

SKIPWORTH, HERBERT, L.R.C.P., L.M. Irel., M.R.C.S., has been re-appointed Medical Officer of Health for the Quorndon Urban Sanitary District.

STOTT, W. A., M.R.C.S., L.R.C.P., late Resident Obstetric Officer, has been appointed Pathological Curator to the Leeds General Infirmary.

TILL, GEO. W., L.R.C.P., L.M. Edin., L.F.P.S. Glasg., has been appointed Medical Officer to the Cottage Homes of the Worcester Union.

WARRY, J. KING, M.D. Lond., D.P.H., has been appointed Medical Officer of Health for the Hackney Sanitary District.

WINDSOR, CHARLES W., M.R.C.S., M.A., M.B., B.S., has been appointed House Physician to the *Dreadnought* Seamen's Hospital, Greenwich, vice Matthew Henry Spencer, resigned.

YOUNG, M., M.B., C.M. Edin., has been appointed Medical Officer of Health for the Halifax Rural Sanitary Authority, and also Medical Officer to the Corporation, Brighouse, Yorks.

# Vacancies.

*For further information regarding each vacancy reference should be made to the advertisement (see Index).*

ADDENBROOKE'S HOSPITAL, Cambridge.—Resident House Surgeon. Salary £65 per annum, with board, lodging, and washing in the Hospital.

BOOTLE BOROUGH HOSPITAL.—Resident House Surgeon. Salary £80 per annum, with board, washing, &c.

BRADFORD CHILDREN'S HOSPITAL.—House Surgeon. Salary £70, with board, residence, and washing.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Assistant Surgeons.

CHARING-CROSS HOSPITAL, London.—Surgical Registrar. Salary £40 per annum.

COUNTY OF LANARK.—Medical Officer for the County. Salary £700 per annum, with travelling expenses and allowances for a clerk and office.—Applications to the County Clerk, Hamilton.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis-road, Shadwell, E.—House Surgeon. Board, lodging, &c., provided.

LONDON TEMPERANCE HOSPITAL, N.W.—Assistant Resident Medical Officer for six months. Board, washing, and residence in the Hospital provided, and a honorarium of 5 guineas given.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney-road, Shoreditch, N.E.—Physician.

NORTH-WEST LONDON HOSPITAL, Kentish Town-road.—Resident Medical Officer and Assistant Resident Medical Officer for six months. Salary £50 to the senior post.

PARISH OF BIRMINGHAM.—Resident Medical Officer at the Workhouse. Salary £150 for the first year, rising £10 yearly to £200 per annum. Rations (no alcoholic liquors allowed), apartments, washing, and attendance provided.—Applications to the Clerk to the Guardians, Parish Offices, Edmund-street.

RADCLIFFE INFIRMARY, Oxford.—House Physician and House Surgeon, for six months. Salary at the rate of £80 a year, with board, lodging, and washing.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Examiner in Dental Surgery.

WEST HAM HOSPITAL, Stratford, E.—Secretary. Commencing salary £150 per annum.

WEST HAM UNION.—Medical Officers for Districts Nos. 10 and 14. Salary £120 each per annum, together with extra medical fees, as prescribed by the orders of the Local Government Board. Applications to the Clerk, Guardians' Office, Union-road, Leytonstone, E.

# Births, Marriages, and Deaths.

## BIRTHS.

BLOXAM.—On Oct. 16th, at Lower Weston, Bath, the wife of G. E. Bloxam, M.R.C.S., L.R.C.P., of a daughter.

BONAR.—On Oct. 17th, at his residence, 114, Via del Babuino, Piazza di Spagna, Rome, the wife of Thomson Bonar, M.D. Edin., of a daughter.

CARRUTHERS.—On Oct. 22nd, at Halton, Cheshire, the wife of W. Hodgson Carruthers, M.D., of a daughter.

LAWRENCE.—On Oct. 21st, at Belsize-avenue, the wife of L. A. Lawrence, F.R.C.S., of a daughter.

MURRAY.—On Oct. 18th, at Saville-place, Newcastle-on-Tyne, the wife of George R. Murray, M.B., of a son.

RICE.—On Oct. 10th, at Harwell, Steventon, Berks, the wife of Richard Rice, M.R.C.S., L.S.A., of a daughter.

SMART.—On Oct. 18th, at Polesworth, near Tamworth, the wife of W. H. Smart, M.B., &c., of a son.

STONEY.—On Oct. 22nd, at Roland-gardens, S.W., the wife of Ralph Stoney, L.R.C.P., L.R.C.S. Irel., of a daughter.

## MARRIAGES.

BLUCKE—COLLINS.—On Oct. 17th, at the Parish Church, Sandhurst, Kent, by the Rev. G. Ridout, M.A., Rector, assisted by the Rev. Stewart Blucke, M.A., Rector of Bradden, Frederick H. S. Blucke, L.R.C.P. Lond., M.R.C.S. Eng., youngest son of the Rev. W. S. Blucke, Rector of Willoughby Warterless, Leicestershire, to Elizabeth Harriet, youngest daughter of the late Thomas Collins, Esq., of Sponden House, Sandhurst.

GREATHEAD—BUBB.—On Oct. 4th, at the Cathedral, Grahamstown, S.A., John Baldwin Smithson Greathead, M.B., C.M. Edin., to Ellen Annie, second daughter of the late William Henry Bubb, of Cheltenham, Solicitor.

GREENLEES—WHITE.—On Oct. 17th, at St. Mary's Church, Stone, Kent, T. Duncan Greenlees, M.B. Edin., Medical Superintendent, Grahamstown Asylum, S. Africa, to Edith, daughter of the late Richard White, Esq., of Norwich.

JESSOP—FURLONGER.—On Oct. 15th, at St. Andrew's, Ashley-place, by the Rev. A. B. Buckland, M.A., Walter Hamilton Hylton Jessop, M.A., M.B., F.R.C.S., of 73, Harley-street, W., to Florence, youngest daughter of the late Charles J. Furlonger, of 62, Cornwall-gardens, S.W.

MORGAN—WATERS.—On Oct. 16th, at the Church of St. Mary Magdalene, Croydon, Charles Arthur Morgan, M.R.C.S. Eng., L.S.A. Lond., only son of C. E. Morgan, of Garway, Weston-super-Mare, to Louisa Mary, eldest daughter of W. Waters, of Marlborough House, Croydon.

WEST—VEALE.—On Oct. 17th, at Hatherleigh Parish Church, Lionel Frederick West, M.R.C.S., L.R.C.P., eldest son of Alfred West, The Rydings, Birstall, Yorks, to Emily, fourth daughter of Henry Mallet Veale, J.P., of Passaford, Hatherleigh, N. Devon.

## DEATHS.

BAILES.—On Oct. 9th, at Rochester-square, Camden-town, N.W., John Horne Bailes, L.S.A., aged 74.

BULLER.—On Oct. 7th, at Hada Ixtapa, Mexico, Audley Cecil Buller, M.D., aged 41.

CLARKE.—On Oct. 13th, at Port Said, Basil Roberton Clarke, M.R.C.S., L.R.C.P., Surgeon R.N., H.M.S. *Melita*, aged 27 years, only son of Francis Clarke, 63, Gladsmuir-road, Whitehall-park, N.

EMMERSON.—On Oct. 17th, William Lindsay Emmerson, M.D., late Public Analyst for the counties of Leicester, Northampton, &c., aged 73.

HICKS.—On Oct. 13th, at 7, Brock-street, Bath, Charles Cyril Hicks, M.D., of Wokingham, Berks, formerly of Dunstable, Beds, aged 62.

HOWE.—On Sept. 11th, at Jebu Ode, Lagos, West Africa, Ernest Robert Howe, Senior Assistant Colonial Surgeon, aged 34.

LANG.—On Oct. 20th, at Gloucester-road, South Kensington, James Samuel Seyer Lang, M.R.C.S. Eng., L.S.A., in his 77th year.

***N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.***

## METEOROLOGICAL READINGS.

*(Taken daily at 8.30 a.m. by Steward's Instruments.)*

THE LANCET Office, Oct. 25th, 1894.

| Date. | Barometer reduced to Sea Level and 32° F. | Direction of Wind. | Dry Bulb | Wet Bulb | Solar Radia in Vacuo. | Maximum Temp. Shade. | Min. Temp | Rainfall. | Remarks at 8.30 A.M. |
|---|---|---|---|---|---|---|---|---|---|
| Oct. 19 | 29·65 | N.E. | 47 | 45 | 59 | 52 | 45 | ... | Bright |
| ,, 20 | 29·48 | N.E. | 46 | 45 | 55 | 50 | 44 | ... | Overcast |
| ,, 21 | 29·41 | N.W. | 49 | 46 | 70 | 52 | 44 | 0·30 | Cloudy |
| ,, 22 | 29·80 | N.E. | 41 | 39 | 59 | 51 | 38 | ... | Overcast |
| ,, 23 | 29·98 | E. | 47 | 45 | 59 | 57 | 41 | ... | Bright |
| ,, 24 | 29·38 | S.E. | 57 | 55 | 67 | 59 | 47 | 0·01 | Cloudy |
| ,, 25 | 29·16 | S.W. | 55 | 53 | 95 | 60 | 52 | 1·01 | Cloudy |

# Medical Diary for the ensuing Week.

## OPERATIONS.

### METROPOLITAN HOSPITALS.

**MONDAY.**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.).

**TUESDAY.**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

**WEDNESDAY.**—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), Gt. Northern Central (2.30 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.).

**THURSDAY.**—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (2 P.M.), Soho-square (2 P.M.), North West London (2 P.M.).

**FRIDAY.**—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), Cancer (2 P.M.), Chelsea (2 P.M.).

**SATURDAY.**—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

## SOCIETIES.

**THURSDAY.**—HARVEIAN SOCIETY.—8.30 P.M. Dr. R. T. Hewlett: Bacteriology in its Practical Aspects.

**FRIDAY.**—WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—8.15 P.M. Business. 8.30 P.M. Discussion on Diphtheria, opened by Drs. H. C. Pope and J. C. Thomson.

## LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

**MONDAY.**—LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital, Moorfields, 1 P.M., Mr. A. S. Morton: Affections of Eyelids.—London Throat Hospital, Gt. Portland-st., W., 8 P.M., Mr. G. Stoker: Chronic Glandular Diseases of the Naso-Pharynx.—Bacteriological Laboratory, King's College, 3 to 5 P.M., Prof. Crookshank and Dr. Hewlett: Tuberculosis and Leprosy.

**TUESDAY.**—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 2 P.M., Dr. P. Smith: Developmental Insanity; Circular Insanity.

**WEDNESDAY.**—LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton, 4 P.M., Dr. T. D. Acland: Cases of Empyema and its results.—Royal London Ophthalmic Hospital, Moorfields, 8 P.M., Mr. A. Q. Silcock: Glaucoma.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3 P.M. Lecture by Dr. Beevor.

WEST LONDON HOSPITAL (Hammersmith-road, W.).—5 P.M. Mr. Edwards: Cases of Urinary Surgery. (Post-graduate Lecture.)

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—Dr. Morgan Dockrell: Tuberculosis of Skin.

**THURSDAY.**—LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Gt. Ormond-st., 3.30 P.M., Mr. L. Hudson: Otorrhœa in Children.—National Hospital for the Paralysed, Bloomsbury, 2 P.M., Dr. C. Bastian: Selected Cases.—Central London Sick Asylum, Cleveland-street, W., 5.30 P.M., Mr. J. Hutchinson: Cases in the Wards.

CHARING-CROSS HOSPITAL.—4 P.M. Dr. Bruce: Cases in the Wards. (Post-graduate Course.)

**FRIDAY.**—LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton, 4 P.M., Dr. H. Mackenzie: Phthisis in Children.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—11 A.M. Dr. J. O. W. Barratt: Introductory.

**SATURDAY.**—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 11 A.M., Dr. Hyslop: Climacteric and Senile Insanity.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—Dr. Morgan Dockrell: Diseases of Nails.

# Notes, Short Comments & Answers to Correspondents.

## EDITORIAL NOTICE.

**IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.**

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe or recommend practitioners.*

*Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."*

*Letters relating to the publication, sale and advertising departments of* THE LANCET *should be addressed "To the Manager."*

*We cannot undertake to return MSS. not used.*

## MANAGER'S NOTICE.

**UNDER no circumstances do the Proprietors authorise the insertion of loose advertisement circulars and handbills in THE LANCET. Any such announcements are inserted by the newsagents, whom the Proprietors cannot control. At the same time, the Manager will be glad if readers will send him copies of any circulars, with the name and address of the agent through whom they obtain THE LANCET, and the Manager will then endeavour to mitigate the nuisance.**

### THE OVERCROWDING OF THE PROFESSION.

A CORRESPONDENT sends us an interesting letter—too long for insertion—in which he speculates as to what would be Abernethy's reflections if he now saw one of the crowded theatres of our larger medical schools filled with youths beginning the study of the profession, whose ranks are already so overstocked. There is much truth in what our correspondent says; but he goes a little too far. His letter amounts to an argument against all medical science which aims at preventing disease, inasmuch as disease is the *raison d'être* of the medical profession. It must be admitted that, in spite of all the efforts of medical officers of health, there is still a good deal of disease left to treat, and that there are callings and appointments for medical men which Abernethy never dreamt of. Our correspondent is on sounder ground when he advocates increased stringency of the entrance examinations of the profession. It is of more consequence to the public that its medical men should be men of high culture and good principles than that they should be as numerous as they are.

### "EPIDERMIN"?

*To the Editors of* THE LANCET.

SIRS,—A few days ago the following prescription was brought to us to dispense:—"Hydrarg. ammon. chlorid., gr. x.; liq. carb. deterg., ℥xx.; epidermin, ʒi. M. ft. ung. To be applied behind the ears." What is the last ingredient? We have tried all the general wholesale houses. The publication of this in your columns may elicit the desired information. I am, Sirs, yours faithfully,

Lewisham, S.E., Oct. 5th, 1894. C. A. BROOKES.

### A BURNLEY MEDICAL ADVERTISER.

THE following is from the *Lancashire Daily Post*, Oct. 18th, 1894:—

"Dr. McGuire, Physician and Surgeon, fully qualified and registered M.D., L.R.C.P., L.A.H., L.M., and Dental Surgeon, 24, Parker-street, Burnley. Sufferers from Cancers and Tumours, in any stage, either internal or external, completely cured. Kidney and Liver Diseases, Rheumatism, Nervous Debility, Fits &c., cured Testimonials and references supplied on application. Dr. McGuire may be consulted daily at 24, Parker-street, Burnley—the only address."

### THE POESY OF ANTIVACCINATION.

WE have received from a wondering correspondent a lyrical address "to an unvaccinated child." Now, it is a matter of general and notorious fact, and of curious fact as displaying the innate good taste of the people, that poetic addresses never effect their purposes unless they have artistic claims. We append the last three stanzas which the poet proposes to inflict upon the unvaccinated child, and feel certain that if he had been advocating the finest moral cause in the world he could only with such effusions help to kill it:—

"Aye! freely to me if that be the law?
But never on thee shall they put a paw:
Then sleep, little babe may be without wealth,
But thy body endowed with the best of health.

"Coward parents of England! to stand meekly by,
And give your consent to the deed of a LIE!
Fraud on humanity! outrage on liberty!
On good sense and purity! Well may mortality
in infants be high!

"Vilest credulity! coarsest brutality!
Are not the days of Chemosh gone by,
When callous grew pity, and fetish a duty
Deafened the ear to the poor children's cry?"

*Dr. Scurfield.*—The slight error to which our correspondent has kindly directed our attention has been referred to the writer of the article. Is it, however, quite correct to describe "brewer's grain" as refuse?

### HOSPITAL ABUSE.

*To the Editors of* THE LANCET.

SIRS,—Not very long since a Royal Commission sat to inquire into hospital abuse. With what result, may I ask, as shown by the following cases which came under my notice? No. 1: A patient in well-to-do circumstances consulted me, and remarked that she went to a London hospital. I was surprised, and on inquiry she told me "she was not asked any questions as to her fitness to be treated at a charitable institution." No. 2: The sons of a man very well off, owning his residence, also house property here and in adjoining town, were similarly treated. No. 3: A farmer has just been operated upon. I understand this man is in comfortable circumstances, as he told me "he was able and willing to pay me £25 for operation if I would guarantee him a success." I mention the above cases in order to correct similar abuses in future, which I consider a great injustice to the poor (and I can mention as an example that a deserving case, a labouring man, could not be taken into a leading London hospital for want of room); to the medical profession, who readily and gratuitously give their services in deserving cases; and, lastly, to the benefactors of charitable institutions. In all cases, if possible—at all events in all doubtful cases—the name, address, and occupation of the patient, as also the name and address of the ordinary medical attendant, should be given as a reference.

I am, Sirs, yours faithfully,
COUNTRY PRACTITIONER.

*** The above letter is worthy of the serious consideration of the committees of hospitals who wish to preserve the confidence of the charitable public.—ED. L.

### MEDICAL AID ASSOCIATIONS AS STEPPING-STONES TO PRIVATE PRACTICE.

A CORRESPONDENT writes to us with a sense of grievance. The lease of the premises of the association whose medical officer he is, is about to expire, and the committee intended to hand over the place to him for a nominal consideration; but his predecessor, who had disagreed with the committee and set up next door to the institute and taken away most of the patients, hearing of the arrangement, anticipated the association and secured the premises for himself. We think that it is for each medical officer to consult his own sense of duty to the profession and his neighbours. We advise our correspondent to decline semi-professional transactions with a lay body, and not to enter practice through the gate of a medical aid association.

### MEDICAL PRACTICE IN VICTORIA.

*To the Editors of* THE LANCET.

SIRS,—Will you kindly permit me to inquire through your valuable columns if any of your readers would give some information as to medical practice, fees, &c. in Melbourne or any large town in Victoria? Are the chances of making or purchasing a practice equal to those in our own country, taking into consideration the larger expenses incurred in working a practice in the colonies? I have suffered a great deal in health owing to climatic changes, and before seeking a more suitable climate I shall feel very thankful for any advice on the subject that may be kindly offered. I am, Sirs, yours faithfully,

Oct. 22nd, 1894. A SUFFERER.

### ADVERTISING CARDS AT ST. HELENS.

*Inquirens.*—The medical men of the town should unite in sending the card in question to the medical authority from which the advertiser has his qualifications.

### THE "TORPEDO" SLATE CLEANER.

IN view of the dangers of "slate licking" as a means of spread of such diseases as diphtheria in schools, we may call attention to a simple piece of apparatus patented by Mr. W. Teggin of Dickinson-street, Salford, which obviates any recourse to the uncleanly, if common, practice. It consists of a small metal reservoir to receive water, which can be ejected *guttatim* upon the slate, and a piece of sponge affixed to the extremity serves to complete the cleansing operation. Its simplicity and cheapness should make it largely employed.

*R. A. R.* (Edinburgh).—The papers for recent examinations have not been published. Our correspondent might apply to the Secretary, Military Department, India Office, Whitehall.

*Mr. C. Birchall.*—The sample referred to has been received, and will be submitted to examination in due course.

### CERTIFICATION OF DEATH IN SCOTLAND.

*To the Editors of* THE LANCET.

SIRS,—I would be greatly obliged if you could give me information on the following points. The hospital in which I am at present acting is situated in a seaport town in Scotland. Our mortuary is used by the town; and bodies of persons drowned, which have been found in the docks, are frequently taken there. On these occasions the resident on duty is always asked by the police to view the body, and furnishes the inspector with a verbal report, which is used by the procurator fiscal. He is sometimes subsequently requested to give a certificate, on soul and conscience, as to the probable cause of death, but on four occasions on which I have been called to see the body of a drowned person I have only once been asked for such a certificate—i.e., I have only once received any fee; and my fellow resident has been similarly treated. I would be glad if you could tell me if this is legal, for I consider that the inspector has no right to ask me to perform such duties without my being assured of remuneration. In cases where no certificate is asked, the procurator fiscal sends a note saying that the body can be given up for burial, and this is accordingly done without any medical certificate. Is this proceeding legal?

I am, Sirs, yours truly,
Oct. 17th, 1894. AN INQUIRING RESIDENT.

*** The procurator-fiscal's action in ordering burial without medical certificate is, unfortunately, not illegal. But a hospital resident medical officer need have no hesitation in refusing to accede to a request by the police that he should view a body and give a verbal report. If no suspicion attaches to a case, the procurator-fiscal is at liberty to do without medical evidence of any kind. If, on the other hand, there is suspicion, a post-mortem examination should be made, for which a fee of two guineas is payable; and, unless in the unlikely event of the medical man having some professional knowledge of the previous health of the deceased, we are strongly of opinion that he should refuse to give even a written report, for which a fee of one guinea is allowed, without a post-mortem examination. Our views on the whole subject were stated at length in our issues of June 10th, 17th, and 24th, 1893.—ED. L.

### THE INSANITARY CONDITION OF WEDMORE.

A CORRESPONDENT sends us an almost incredible account of the insanitary condition of Wedmore and the adjoining country. We should like some medical evidence on the subject before we take any step in accordance with our correspondent's letter.

ERRATUM.—By a clerical error in the Analytical Records in our issue of Oct. 20th the address of Messrs. C. J. Hewlett and Co. was given as 40, 41, 42, Great Eastern-street, E.C. It should have been 40, 41, 42, *Charlotte-street*, Great Eastern-street, E.C.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

**During the week marked copies of the following newspapers have been received:**—*Daily Telegraph, Norwood News, Dewsbury Chronicle, Daily Chronicle, Morning Advertiser, Fishing Gazette, Western Mail, Morning, East Anglian Daily Times, Western Press, Southport Gazette, Newcastle Daily Chronicle, Eastern Morning News, Nature, Halifax Mercury, Coventry Mercury, Musical Record, Grimsby News, Staffordshire Post, Domestic Magazine, Health, Birmingham Gazette, Echo, East Devon Advertiser, Bicester Herald, Courier de la Presse, Liverpool Daily Post, Reading Mercury, Yorkshire Post, Weekly Times and Echo, Bournemouth Visitors' Directory, West Middlesex Standard, Sanitary Record, Weekly Free Press and Aberdeen Herald, Hertfordshire Mercury, St. Bartholomew's Hospital Journal, Science Siftings, City Press, Bristol Mercury, Public Health, Builder, Glasgow Herald, Manchester Guardian, Architect, Guy's Hospital Gazette, Local Government Journal, Surrey Advertiser, The Western Figaro (Plymouth), Kentish Express, Kilmarnock Herald, Scotsman, Cheshire Observer, Loughborough Monitor, Local Government Chronicle, Times of India, Norfolk Weekly Standard, Citizen, Hastings Times, United Service Gazette, Pioneer Mail, Thanet Guardian, Cork Daily Herald, Le Temps (Paris), Lynn News, &c., &c.*

## Communications, Letters &c. have been received from—

A.—Apothecaries' Hall, London, Secretary of; American Academy of Medicine, Easton, Pa., Secretary of; A. Q., London.

B.—Mr. L. Browne, London; Mr. W. J. Bell, Scatwell; Mr. Hinckes Bird, London; Mr. G. A. H. Barton, Devon; Mr. G. Brown, London; Mr. T. B. Browne, London; Mr. L. A. Bidwell, London; Mr. C. Birchall, Liverpool; Messrs. Baillière, Tindall, and Cox, London; Messrs. F. and J. Bruce, London; *Birmingham Daily Post*, Publisher of; *Birmingham Daily Gazette*, Publisher of; British Laryngological and Rhinological Association, London, Hon. Secretary of; British Guiana Medical Annual, Publisher of; Bristol Medico-Chirurgical Society, Hon. Secretary of; B. G., London.

C.—Dr. W. H. Carruthers, Halton; Mr. T. Culleton, London; Mr. J. Carter, London; Mr. A. E. Couzens, Middlesbrough; Mr. D. N. Cooper, London; Mr. A. Currie, London; Messrs. A. H. Cox and Co., Brighton; Messrs. Callard and Co., London; Messrs. Cooper and Co., London; Cumberland Infirmary, Carlisle, Secretary of; Corvo, London; County Practitioner.

D.—Dr. J. Dulberg, Manchester; Dr. E. Deansley, Wolverhampton; Mr. P. De Santi, London; Mr. J. Dykes, Manchester; Mr. W. A. Dartnell, Rochester; Delta, London.

E.—Dr. J. Ewart, Brighton; Mr. S. Edge, Manningtree; Messrs. Eason and Son, Ltd., Dublin.

F.—Dr. T. R. Fraser, Edinburgh; Mr. A. Fournet, London; F. D. B.; Fairplay; F.R.C.P.E., London.

G.—Dr. Gowers, London; Dr. J. Groves, Newport, Isle of Wight; Dr. C. J. Gibson, Wetherby; Mr. T. Goodwin, Matlock Bridge; Mr. H. R. Greene, Knaphill; Mr. P. Gross, Margate; Gloucester General Infirmary, Secretary of; Glasgow University, Assistant Clerk of; Glasgow Royal Infirmary, Secretary of; Stanley Gibbons, Ltd., London; General Medical Council, Assistant Registrar of.

H.—Dr. W. E. Harker, Newcastle-on-Tyne; Dr. A. Haig, London; Dr. V. D. Harris, London; Dr. W. L. Heath, London; Mr. T. Garrett Horder, Cardiff; Mr. J. Heywood, Manchester; Mr. W. F. Horton, London; Mr. J. L. Hamilton, Brighton; Mrs. M. H. Hunt, Boston, U.S.A.; Messrs. Harker, Stagg, and Morgan, London; Messrs. Hirschfield Bros., London; H. A. C., Saxmundham; Hippocrates, London.

I.—Ings House Nurses' Cooperation, Lady Superintendent of; Inquirens.

J.—Mr. R. G. Jack, London; Mr. Jerome K. Jerome, London; Mr. R. Jones, Liverpool.

K.—Dr. G. C. Kingsbury, Blackpool; Dr. C. P. King, Newark; Mr. J. H. Kenny, Birmingham; Mr. J. A. Kempe, Edinburgh.

L.—Dr. J. F. Little, London; Dr. S. R. Lovett, London; Dr. T. M. Legge, London; Mr. H. K. Lewis, London; Mr. C. B. Lockwood, London; Messrs. Lee and Nightingale, Liverpool; Life Saving Society, London, Hon. Secretary of; Lex.

M.—Dr. J. C. McVail, Glasgow; Dr. Donald Macalister, Cambridge; Dr. L. Maybury, Southsea; Dr. J. A. MacDougall, North Berwick; Dr. D. McKeown, Manchester; Dr. E. H. Montgomery, Mallow; Mr. C. B. Maitland, London; Mr. T. McLean, London; Messrs. Maple and Co., London; Midland Medical Society, Birmingham, Hon. Secretary of; Maltine Manufacturing Co., London; Medicus, London; M.B., Probus; M. D., London.

N.—National Dental Hospital, London, Dean of; N. E. R., London.

O.—Dr. T. Oliver, Newcastle-on-Tyne.

P.—Mr. P. Pope, London; Mr. W. Paulson, Loughborough; Mr. F. Piggott, Cambridge; Mr. Y. J. Pentland, Edinburgh; Messrs. K. Paul, Trench, and Co., London; *Pester Correspondenz*, Budapest, Editor of; Plymouth Medical Society, Hon. Secretary of.

Q.—Queen Margaret College, Glasgow, Hon. Secretary of.

R.—Dr. A. J. Richardson, West Brighton; Dr. W. Robertson, Buxton; Dr. J. B. Ryley, London; Mr. Mayo Robson, Leeds; Mr. W. M. Roocroft, Wigan; Mr. J. Robinson, Halifax; Mr. A. H. Rees, Plymouth; Messrs. J. Richardson and Co., Leicester; Messrs. Robertson and Scott, London; Messrs. Raoul, Pictet and Co., Berlin; Reading Pathological Society, Hon. Secretary of; Royal College of Surgeons, Ireland, Registrar of; Rotherham Hospital, Collector of.

S.—Dr. T. Savill, London; Dr. H. Sutherland, London; Dr. F. F. Schacht, London; Dr. R. Sisley, London; Surgeon-Major H. F. Stokes, London; Mr. C. H. Shears, Liverpool; Mr. Simeon Snell, Sheffield; Mr. M. Shirley, Leeds; Mr. C. F. Sutton, Holmes Chapel; Mr. F. A. Southam, Manchester; Messrs. F. Stearns and Co., London; Dr. Steeven's Hospital, Dublin, Hon. Secretary of; St. Andrews University, Secretary of; Society of Anæsthetists, London, Hon. Secretary of; St. Luke's Hospital, London, Secretary of; Semper Idem, London.

T.—Mr. T. Pridgin Teale, Leeds; Mr. Lawson Tait, Birmingham; Mr. J. K. Thornton, London; Trinity College, Dublin, Assistant Librarian of; Torbay Hospital, Torquay, Secretary of; Throat Hospital, London, Dean of; T. A. L., London; Tutor, London.

U.—University of Durham College of Medicine, Secretary of; United Kingdom Alliance, Hon. Secretary of.

V.—Dr. W. Vajna, Budapest; Dr. E. D. von Tunzelmann, Chefoo; Mr. F. Verney, London; Mr. W. H. Vandrey, Manchester.

W.—Dr. A. J. Wall, London; Dr. C. T. Williams, London; Dr. J. J. Welply, Bandon; Mr. W. Woodward, Plymouth; Mr. E. Wilson, Exeter; Mr. Wyatt Wingrave, London; Mr. T. Weedon, Brisbane; Mr. D. E. Wilson, London; Messrs. Warrick Bros., London; Messrs. Williams and Norgate, London; West Ham Hospital, Acting Secretary of; West London Medico-Chirurgical Society, Secretary of.

Y.—Yorkshire College, Leeds, Dean of.

## Letters, each with enclosure, are also acknowledged from—

A.—Dr. E. Allen, Hawes; Dr. A. E. Ash, Stoke-on-Trent; Dr. H. H. Aitchison, Wallsend-on-Tyne; Mr. W. R. Ackland, Clifton; Messrs. Armour and Co., London; A. P., London; Anderson, Harrogate; Alpha, London; A. B. C., London; Aleph, London; A. F., London; A., Leeds.

B.—Dr. J. Brown, Clifton; Mr. H. Brice, jun., Exeter; Mr. J. O. Bell, Wickham Market; Messrs. Blondeau et Cie., London; Bone, London; Brixton, 2, Acre-lane.

C.—Mr. B. P. Conolly, Funchal, Madeira; Clark's Bread Co., Brighton; C. P., London; C. T., London; C. M., London; C. H., Sheffield; Cantab., London; C., Goring.

D.—Mr. A. Denman, Beaconsfield; Dunelm, London.

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